

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Natural Resource Management		
Proposal Number:	100.09NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Parks & Community Services
Dependent Proposal:		Proposal Type:	Enhancing
Previous Proposal:	100.36NA, 100.37N	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Dan DeWald

Section 2: Executive Summary

This proposal funds the management, maintenance and environmental stewardship programs on 1,900 acres of public natural area and open space property comprised of lakes, streams, wetlands and forests. Programs preserve native tree canopy, provide fish and wildlife habitat, retain stormwater, improve air and water quality and reduce greenhouse gases. Greenways and trails provide outdoor classrooms for diverse populations to interact with nature through hands-on stewardship activities that help preserve and enhance the natural environment in the community where they live, work and play. Urban natural areas must be proactively managed with the same commitment as other vital community resources in order to ensure public health and safety, and the environmental, social and economic values and benefits for which they were set aside. A healthy natural environment preserves the quality of life that residents and businesses look for when selecting a location to reside in now and in the future.

Section 3: Responsiveness to Request For Results

The City is buying a comprehensive Natural Resource Management (NRM) program to sustain a healthy natural environment for current and future generations. The funding level requested will ensure that the environmental factors including air, water, natural environment, and built environment are maintained to current citizen expectation levels. Lower funding will result in environmental degradation, reduced citizen satisfaction, increased liability, and will deprive the community of the environmental, social, and economic benefits currently provided.

NRM includes: 1) Planning – setting policies, goals and objectives that integrate the natural and developed environments; 2) Management – the scientific and technical understanding of the resource and prescribed actions necessary to achieve our community's goals and objectives; 3) Implementation – on-the-ground actions to preserve, enhance and restore the resource; 4) Maintenance – proactive and on-going tasks necessary for implementation to be successful; and 5) Community Education and Involvement – public outreach and community involvement to increase people's knowledge, instill positive attitudes and behaviors, and educate citizens on the importance of planning, management, enhancement and maintenance as necessary tools to preserve environmental values and functions for current and future generations.

NRM focuses on the way people and the urban landscape interact. NRM recognizes that a healthy ecosystem is a dependent, and interconnected web of air, land, soil, water, plants, fish, wildlife and people, and that their natural and built environments cannot be managed in isolation of each other. When development and urbanization occur, ecosystems and food chains are interrupted, and natural processes are no longer able to compete against the effects of outside influences. Bisected wildlife corridors, the disposal of refuse, encroachment by neighbors, illegal tree cutting, invasion of introduced (non-native) plants, eroding streams, and unmanaged access by well-meaning recreationists are common problems. If these problems are not addressed through a science based proactive stewardship program Bellevue's air, water and natural environment, including its lakes, streams, wetlands, upland forest and wildlife habitat, will progressively degrade and cease to provide the healthy natural environment for which they were preserved.

NRM involves a scientific understanding of each individual site's functional relationship with the system as a whole. It begins with a site specific analysis and evaluation of property including the legal boundary, past uses, tree and vegetation habitat type, existing tree and forest health condition, soil types, geology, degree of slope,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

site aspect, recreational and education opportunities, adjacent land uses, fish and wildlife habitat and system connectivity.

This analysis results in site-specific plans and actions that ensure public safety, improve forest condition and expand native tree canopy, resulting in improved fish and wildlife habitat, reduced erosion, improved air and water quality and public education and access opportunities. All of these actions focus on the factors that ensure a healthy and sustainable environment for current and future generations.

CLEAN AIR

Annually, NRM improves the health and condition of 10-20 degraded acres of natural area and open space by planting over 10,000 native trees and plants each year to restore and expand tree canopy. This expanded canopy helps abate air pollution and reduce greenhouse gases in the atmosphere. A 2008 American Forests study showed Bellevue's natural areas remove over 218,000 lbs. of air pollutants per year. In addition, these lands sequester over 820 tons of carbon each year, playing a significant role in greenhouse gas reduction. NRM maintains 85 miles of interconnected multi-purpose trails that provide energy efficient transportation options for pedestrians and bicyclists to access neighborhoods, schools, parks and businesses. A well maintained non-motorized trail system reduces automobile use, promotes public health, and results in reduction of greenhouse gases leading to improved air quality. NRM stewardship programs and events help educate the community on ways to reduce air pollution. Stewardship Saturdays and Eco Fridays provide hands-on planting opportunities to educate and involve citizens in preserving and restoring tree canopy. Limited parking, bike racks, and outreach programs encourage carpooling and alternative modes of transportation to reduce greenhouse gas emissions.

WATER

NRM forest enhancement activities intercept, store, and filter rainwater to protect and improve water quality. Bellevue's tree canopy intercepts rain water to reduce erosion, and a healthy understory stabilizes soil to reduce sedimentation into our streams and lakes. An American Forests Ecosystem Analysis completed in 2008 report estimates the water holding capacity of Bellevue's urban forest is valued at \$20,650,005. NRM restoration projects increase and enhance stream and lakeshore buffers to filter storm-water from surrounding development to help protect water quality. NRM utilizes low impact trail planning, construction and maintenance best-management-practices (BMP's) to protect water quality in natural area that drain storm-water into Lake Washington and Lake Sammamish. Trail planning delineates trails to help protect sensitive slopes and riparian corridors. Trail construction and maintenance utilize site sensitive, low impact BMP's to allow citizen access to gain appreciation for natural areas while safeguarding lands from excessive compaction and erosion to protect water quality. NR visitor center design and programming incorporate bio-swales, rain gardens, green roofs, pervious surfacing, cisterns, and other low-impact development (LID) technologies that help manage storm water. Programming, interpretive signs, and other community involvement efforts educate citizens on these and other techniques they can use to help conserve water and protect water quality.

NATURAL ENVIRONMENT

NRM restoration activities remove noxious vegetation and plant native species to improve the health of our forests, streams, wetlands and lakes. These activities create a healthy natural environment that benefits both citizens and wildlife alike. Without proactive management, maintenance, and outreach the environmental values and benefits for which these areas were preserved will be compromised. NRM greenways and trail systems immerse citizens into the natural ecosystems that they are a part of, providing a nature experience in which to live, work, learn and play. Greenways also provide corridors linking wildlife to essential habitats. Ongoing trail management and maintenance helps ensure a safe and well used trail system that helps protect our finite natural resources. NRM environmental outreach programs provide opportunities for citizens to learn about how they can protect, conserve, and enhance our shared natural resources. NRM programs made over 113,000 citizen contacts in 2013. Over 90% of Bellevue's land base is privately owned. Everything in nature is connected, and the cumulative negative actions of uninformed citizens lead to universal degradation of our shared natural resources. Only through proactive environmental education leading to positive community attitudes and behaviors can we effectively ensure a healthy, sustainable environment for present and future generations.

BUILT ENVIRONMENT

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

NR visitor centers use LEED (Leadership in Energy and Environmental Design) standards for sustainable facility construction and operations. Building materials utilize reused, recycled and sustainable products. Bio-swales, rain gardens, pervious surfacing, and cisterns protect water quality. Energy costs are reduced by tree canopy retention, green roofs, and natural ventilation and lighting techniques. NR visitor center programming focuses on increasing community understanding of sustainable building and development. NR visitor center landscapes are registered as Backyard Wildlife Sanctuaries by the Washington Department of Fish and Wildlife (WDFW) and Certified Wildlife Habitats by the National Wildlife Federation (NWF). These landscapes are programmed as urban demonstration gardens that promote the use of native vegetation in urban residential landscapes to help improve wildlife habitat, promote water conservation, and reduce use of pesticides. Teaching citizens how they can use apply similar techniques to their landscapes helps Bellevue sustain a healthy environment for current and future generations.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
100.0011	Percent of natural areas in healthy and sustainable condition (class conditions 1 and 2)	N/A	71%	71%	71%	70%	70%	70%
999.0060f	Somewhat/strongly agree Bellevue offers me and my family opportunities to experience nature where we live, work, and play	91%	90%	92%	90%	N/A	N/A	N/A
999.0063f	Somewhat/strongly agree Bellevue is doing a good job of creating a healthy natural environment that supports healthy living for current and future generations (added in 2010)	89%	87%	89%	90%	N/A	N/A	N/A
999.0111f	Bellevue's public parks and park facilities appearances are good/excellent	95%	97%	96%	97%	N/A	N/A	N/A

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

This proposal includes four (4) 0.75 Limited Term Employee positions to comply with the new employer requirements of Affordable Care Act, which is partially offset with reduced temporary help budgets. In addition, this includes \$23,000 to maintain new Trail segments completed as part of the Parks Levy or the Parks Capital Investment Program.

5B: Are one-time expenditures included in this proposal?

This proposal includes \$83,000 to purchase a truck to meet multiple program area needs, reduce rental vehicle costs (\$12,000/year reduction), and provide the equipment necessary to maintain forest restoration and enhancement sites.

5C: Are dedicated revenues included in this proposal?

This proposal includes \$271,000 in dedicated revenue, including Natural Resource program fees (\$3,000), farm sales and contracts (\$101,000), staff labor distribution charges to the CIP or Farms programs (\$150,000), and Parks Levy Lid Lift property tax revenue dedicated to maintaining and operating completed levy projects (\$17,000).

5D: Are changes to the existing service levels included in this proposal?

NA

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	15.00	15.00	Expenditures	676,186	615,725
LTE	7.50	7.50	Personnel	2,097,645	2,177,547
Total Count	22.50	22.50	Supporting Revenue	590,768	551,486
			Rev-Exp Balance	-2,183,063	-2,241,786

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	PHASE II NPDES Permit REQUIREMENT: LID Principles Project		
Proposal Number:	110.11NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Development Services
Dependent Proposal:		Proposal Type:	New
Previous Proposal:	N/A	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Catherine Drews

Section 2: Executive Summary

Federal and state clean water acts regulate discharges from the City's stormwater system under Ecology's Phase II Municipal Stormwater Permit. The Permit requires cities to implement a Low Impact Development (LID) Principles Project. LID principles are land use management strategies designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, resulting in fewer pollutants entering streams, lakes, and wetlands. The Permit requires cities to review and revise citywide development-related policies, codes and standards to integrate LID Principles. This work must be completed by December 31, 2016. This proposal funds consultant services to support completion of the project within the limited deadline and ensure compliance with permit terms, while allowing Development Services staff to continue to provide outstanding customer service during the projected robust 2015 – 2016 development cycle. This is a one-time cost over the 2015-16 budget cycle.

Section 3: Responsiveness to Request For Results

Permit condition S5C4f requires the City to integrate LID Principles into its development codes, standards, and plans to make LID the preferred approach to site development city-wide. The goal of this project is to reduce and control stormwater runoff from new development, redevelopment, and construction sites. To achieve this goal, the City must review its development-related codes, standards, and plans and revise these documents as necessary to make LID the preferred and commonly-used approach to site development in the City. Revisions will be designed to minimize: (1) impervious surfaces; (2) native vegetation loss; and (3) stormwater runoff. The deadline for this project, including adoption of codes or ordinances or approval of standards must be completed by December 31, 2016. Failure to timely complete the project exposes the City to enforcement action by both Ecology and by citizens under the citizen suit provision of the federal Clean Water Act 33 U.S.C. §1365(a). Available remedies under the Act include civil penalties, injunctive and declaratory relief, and reasonable attorney fees and costs to the prevailing party. Knowingly violating the provisions of the federal Clean Water Act is subject to criminal prosecution.

Phase 1 of the project commenced in 2014 and is funded by an Ecology grant (\$40,000) and funds from PCD for the work related to the Comprehensive Plan update (\$10,000). Ecology may have funds available in both 2015 and 2016, but this money is not guaranteed. Phase II work will occur during 2015 and 2016 to meet the December 31, 2016 deadline. The selected consultant will assist the City with Phase II of the project by analyzing the results of the opportunity analyses underway this year and developing options to meet the permit condition. Consultants will provide technical assistance, attend public outreach events, commission and Council meetings, and provide materials necessary for these meetings and events. They will assist presenting proposed options to the public, stakeholders, commission members, and the Council. When the options are vetted, the consultant will prepare recommendations for Council consideration and approval. As needed, the consultants will provide technical assistance to staff, while staff drafts revised codes and standards consistent with Council's approved recommendation.

A. Factors/Purchasing Strategies addressed by this proposal. The LID Principles project advances the Healthy & Sustainable Environment outcome through review and revision of the City's development regulations,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

standards, and planning documents regulations to include opportunities to integrate LID principles: minimizing impervious surfaces, loss of native vegetation, and stormwater discharges. Implementing LID principles will provide benefits city-wide by helping to preserve wildlife habitat, decreasing stormwater runoff, preventing erosion, and improving air quality by minimizing the loss of native vegetation and impervious surfaces. LID principles work towards mimicking the hydrologic processes of undisturbed land. This results in reduced pollutants entering the environment resulting in improvements to: air (through the retention of vegetation); water (through improved stormwater management); the natural environment (by supporting healthy waters, wetlands, and by association, wildlife habitat); and the built environment (through improved development regulations). The proposal relates directly to Healthy & Sustainable Environment's Water Factor for surface and stormwater management. The focus of the NPDES permit is to protect water quality and fishable/swimmable uses of Bellevue's streams, lakes, and wetlands, and to minimize development-related flooding and erosion impacts. This focus directly supports a Healthy and Sustainable Environment.

B. Citywide Purchasing Strategies and Factors/Purchasing strategies for Other Outcomes addressed by this proposal: This proposal would support Citywide Purchasing Strategies to provide the best values for meeting community needs by using consultants to assist in meeting NPDES permit requirements to achieve permit compliance and the community's vision for a healthy and safe environment. The proposal will provide efficiency, ensures sound management of resources, and supports the organization's capacity by providing technical assistance, and freeing DS review staff during time of development upswing. This proposal will also ensure the permit condition is satisfied by December 31, 2016, thereby avoiding long-term impacts to the City related to enforcement actions. This proposal advances Other Outcomes through the following factors/strategies.

Responsive Government. The proposal supports collaboration among several City departments and requires strategic planning to ensure the project is delivered on time. The proposal also supports the proposed Policy Implementation, Code Amendments, & Consulting Services by purchasing consultant services for technical analysis; thereby freeing DS review staff to implement the requirements of the Policy Implementation proposal. The consultant work will support a high performing workforce that is well-trained and equipped to deliver the high-quality and timely services that customers want. This proposal squarely supports stewardship of the public trust by tackling local and regional challenges associated with stormwater management. Ensures compliance with federally-mandated permit requirements.

Safe Community. Implementing LID principles will eventually reduce water flow; thereby further protecting properties from flooding.

Improved Mobility. Using LID techniques will provide for a more pleasant experience for all users of roadways because of the inclusion of additional vegetation in planter strips.

IVCC/Quality Neighborhoods. The proposal will provide information to the public to ensure they understand the project, thus enabling them to meaningfully participate in the development of LID options.

Economic Growth and Competitiveness. Implementation of LID Principles will improve the quality of life in the City through the retention and incorporation of vegetation, attractive water-based activities available in clean lakes and streams, and vibrant, functioning wetlands that provide a unique community quality and improves the quality of life.

C. Partnerships and collaboration proposed: This proposal is part of the City's overall NPDES requirements, which are managed by Utilities. This project brings together staff from across the city to achieve project goals.

D. Activities in this proposal that support the work of other proposals, or save costs that otherwise would need to be expended. This proposal supports two projects: (1) Citywide NPDES Management (140.64NA); and (2) Policy Implementation, Code Amendments and Consulting Services (110.02NA). Development and Policy. The proposal will allow timely completion of an NPDES permit requirement and allow city staff to meet responsibilities to both external and internal customers during the projected development.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

E. Scalability. The scalability of the proposal is dependent on the outcome of the opportunity analyses now underway. Scaling the proposal down will decrease the amount of support that the consultants will provide to staff and shift work currently assigned for consultants back to staff. This resource shift will impact staff's ability to provide timely customer service and increase the risk of not completing the project within the mandated deadlines. Additional funds are not anticipated at this level of funding.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
110.0028	City of Bellevue compliance with state and federal mandatory NPDES Phase II Permit Conditions	N/A	N/A	N/A	100%	100%	100%	100%
110.0029	Number of NPDES agency enforcement actions	N/A	N/A	N/A	0	0	0	0
110.0030	Number of citizen NPDES suit actions	N/A	N/A	N/A	0	0	0	0

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

This new request is for one-time funding for a consultant contract necessary to assist with permit compliance.

5B: Are one-time expenditures included in this proposal?

The request is for one-time consultant services.

5C: Are dedicated revenues included in this proposal?

N/A

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.00	0.00	Expenditures	100,000	75,000
LTE	0.00	0.00	Personnel	0	0
Total Count	0.00	0.00	Supporting Revenue	0	0
			Rev-Exp Balance	-100,000	-75,000

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Environmental Stewardship Initiative		
Proposal Number:	115.24NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Planning & Community Development
Dependent Proposal:		Proposal Type:	Enhancing
Previous Proposal:	040.06NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Paul Andersson

Section 2: Executive Summary

The Environmental Stewardship Initiative (ESI) is a cross-departmental effort to improve the environmental and financial performance of the government, commercial, and residential sectors of the city. ESI facilitates programming and policy analysis that provide measurable cost savings while improving the performance of HSE's Air, Water, Natural Environment, and Built Environment Factors. ESI provides the community with strategic direction, key performance metrics, and program implementations that result in energy efficiency, cleaner transportation, tree canopy management, greener buildings and infrastructure, greenhouse gas reductions, and an engaged public. Internally, ESI is a model "One City" initiative, leveraging resources across departments and community partners to achieve multiple outcomes and public benefits at a low cost. Through ESI, Bellevue has become a nationally recognized leader in environmental sustainability. ESI responds to multiple surveys and outreach activities where Bellevue residents have spoken on behalf of increasing environmental stewardship among city priorities.

Section 3: Responsiveness to Request For Results

ESI works with inter-department staff, businesses and residents, as well as regional and national partners, to reduce greenhouse gas emissions, increase energy efficiency, increase clean transportation options, and promote tree canopy preservation and healthy natural systems. ESI acts in accordance with the environmental goals stated in the city's Comprehensive Plan, ESI Strategic Plan, Economic Development Strategy, Resource Conservation Management Plan, and Resolution 7517 – The Mayors' Climate Protection Agreement, as well as state and local policies.

This proposal provides an existing .9 FTE employee and an enhanced budget of \$100k in order to increase services and savings across multiple programs. Throughout the last budget cycle, ESI capacities were significantly reduced with the departure of the ESI Chair, Sheida Sahandy (Assistant to the City Manager). The enhanced ESI budget will allow for a low-cost capacity increase through a paid internship (\$20,000). In addition, this budget will be allocated to community and residential energy efficiency programs (\$40,000), tree canopy preservation strategy development (\$10,000), and greener government purchasing practices (\$25,000). Approval of this FTE and budget will allow the city to address the HSE Factors/Subfactors in the following ways:

Energy Efficient Transportation Options

Energy efficient transportation options are achieved through the ongoing management of electric vehicle (EV) infrastructure and through improvement to Bellevue's Green Fleet. 22 existing electric vehicle stations installed and managed by ESI are responsible for over 10,000 gallons of fuel savings to the community to date and have seen a 240% increase in usage from 2012 to 2013. In addition, energy efficiency in transportation is achieved through increased use of hybrid, electric, biofuel, and other technologies for Bellevue's fleet vehicles, saving the city 30,000 gallons of fuel annually, or over \$100,000. State Policy ESSB 5099 states "Effective June 1, 2018, all local government subdivisions of the state...are required to satisfy one hundred percent of their fuel usage for operating publicly owned vessels, vehicles, and construction equipment from electricity or biofuel." ESI takes responsibility for identifying, funding, and tracking results of efficient vehicle investments. Fuel consumption accounts for roughly 20% of the city's municipal greenhouse gas emissions and 40% community

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

wide.

Greenhouse Gas Reductions

Greenhouse gas reductions are achieved through all projects administered by ESI, and ESI remains the only city program responsible for the measurement and management of this critical environmental KPI. ESI assesses the city's progress toward meeting its greenhouse gas reduction targets and communicating with council and staff about strategic opportunities to pursue in order to improve our performance. Since 2006, Bellevue's municipal greenhouse gas emissions have been reduced by 12% to 14,511 metric tons of CO₂ equivalent (mtco_{2e}); community emissions have remained nearly constant at 1,577,500 mtco_{2e}; and a reduction of 22% is needed to meet Bellevue's current targets. Anthropogenic greenhouse gas emissions have led to a 40% decrease in the polar ice cap since 1979 (Brookings Institute).

Built Environment

ESI achieves a more sustainable built environment through many mechanisms, with a primary focus on energy efficiency. ESI works with community partners and obtains grant funding in order to deliver energy savings to multiple departments within the city, as well as to residents and businesses. As an example, ESI previously managed the \$1.2 million ARRA stimulus grant which, among other things, delivered lighting upgrades to Parks and City Hall facilities, saving the city over \$50,000 per year. ESI hopes to continue these energy upgrades by partnering with Civic Services and other departments to facilitate the CIP "Revolving Loan Fund (RLF)" proposal. RLFs provide capital funding for cost-saving energy and water conservation measures within city operations. Before savings are realized on the city's balance sheet, they are directed toward the RLF to pay back the project cost, thereby becoming available for the next round of efficiency investments, into perpetuity.

In addition, ESI is partnering with Microsoft and PSE to establish a unique "high performing building district" in downtown Bellevue – Bellevue Urban Smart (BUS). A similar program in North Carolina resulted in energy savings of 9% across 70 commercial buildings over 10,000 square feet. Commercial energy consumption is responsible for 30% of Bellevue's community greenhouse gas emissions. A 9% reduction in commercial energy in Bellevue will result in \$9 million in savings.

On the residential energy efficiency side, ESI is partnering with community members and non-profits to run the first ever "Solarize" campaign in Bellevue – a neighborhood bulk-buying program that reduces the cost and time associated with installing residential solar energy systems. The target outcome for this program is the installation of 25 residential solar energy systems or a total of 100 kW. ESI is also partnering with PSE to deliver programs including the Green Power Challenge (purchasing of renewable energy) and HomePrint (direct installation of efficiency technologies) that will reduce energy consumption and subsequent pollution.

ESI is rolling out the items above, and more, as part of Bellevue's participation in the Georgetown University Energy Prize – a \$5 million award to the mid-size city that can save the most residential and municipal energy between 2015-16 (a mere 7% reduction in residential energy in Bellevue would also result in over \$5 million in savings). The above efforts build on existing and previous programs, including the successful Home Energy Reports program, which was delivered in partnership with PSE and resulted in savings of 9.2 GWh of electricity, 1.3M therms, and \$4.2M in residential energy bill savings across 7 eastside cities. Over 60% of energy produced in the United States is wasted (Lawrence Livermore National Lab). The, cheapest and least harmful source of energy in the world to extract and consume is energy efficiency.

Preserved and Expanded Tree Canopy

ESI, in partnership with IT GIS and Parks Natural Resources, provide citywide canopy coverage reports through the use of aerial photography. The latest study (2006) indicated the city's canopy was at 36% and suggested a target of 40%. An updated study is being undertaken at this time. ESI communicates loss trends over time with

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

members of city council, boards and commissions, and the community. ESI works with staff in DSD, Transportation, Parks, and Utilities to identify and implement opportunities for improving tree canopy retention. Opportunities include process improvements, programs, and policy updates. In the next budget, ESI is proposing a more in-depth “gap analysis” of the city’s tree retention practices and make recommendations to remedy the situation. This would provide more substantive backing for policy, process, and programmatic improvements based on detailed 3rd party analysis of industry best practices compared to Bellevue-specific issues. City of Bellevue has lost one out of every 5 trees since 1986.

ESI educates the residential and business sectors about all environmental issues through two specific platforms. ESI administers www.GreenWA.org, a community information website responsible for mapping sustainability infrastructure, promoting programs and opportunities, and educating the public about green living practices through video and written content. ESI also administers the Eastside Sustainable Business Alliance (www.sustainableeastside.org) which provides technical assistance for businesses to reduce their financial and environmental footprint. As an example, the Eastside Green Business Challenge program facilitated by ESBA as a seven-city eastside effort that saved 10,000 metric tons of CO2 and \$2 million collectively among 35 participating businesses. Educational opportunities on these sites cover the spectrum of HSE factors, including waste reduction and materials management, water conservation, and even community involvement.

ESI’s direct benefit to the community has grown significantly over the past two years in relation to the modest dedication of staff time. The community is now reaping direct and measurable benefits from the program. We are now in a position in which a modest increase in dedicated ESI budget allocations would directly leverage these foundational investments. Maintaining the status quo would enable ongoing programs to progress, but with limited capacity to have the impact necessary from a universal carbon reduction perspective.

Failure to continue this program would result in: (1) higher government operating costs (saved over \$500,000 in ’10-12); (2) inability to obtain grants (over \$2M received since 2009), leading to an inability to continue providing programs and services, (3) cessation of the effort to build system-wide and data-driven mechanisms for protecting valued and valuable environmental assets.

Scaling these programs up or down will have a direct relationship with increasing or decreasing both financial and environmental savings to the city and its residents and businesses.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
115.0058	Community greenhouse gas emissions	N/A	1,577,500	1,607,000	1,603,000	1,238,203	1,238,203	1,238,203
115.0060	Percent decrease in municipal fleet fuel (diesel & gasoline) consumption	N/A	N/A	1.4%	-3%	-5%	-5%	-5%
115.0061	Citywide tree canopy coverage	36%	36%	N/A	N/A	36%	37%	38%
115.0062	Municipal greenhouse gas emissions	N/A	14,511	13,738	13,568	11,246	11,246	11,246
115.0088	Percent of residents who agree that Bellevue is doing a good job of creating a healthy natural environment that supports healthy living for current and future generations.	89%	87%	89%	90%	90%	90%	90%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

An enhanced operating budget of \$100,000 is included in this proposal, with use of funds broken out in Section 3 above. This will create some additional capacity within the ESI program, as well as offset to some extent the loss of capacity that occurred when former ESI Chair Sheida Sahandy left the City.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

N/A

5D: Are changes to the existing service levels included in this proposal?

Increased ESI budget will result in improved service, improved environmental performance, and more cost savings to residents, businesses, and government operations. All budget expenditures proposed are designed to improve key performance indicators and results of all programming can and will be tracked to determine effectiveness.

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.90	0.90	Expenditures	0	0
LTE	0.00	0.00	Personnel	106,264	110,057
Total Count	0.90	0.90	Supporting Revenue	0	0
			Rev-Exp Balance	-106,264	-110,057

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Street Cleaning (Sweeping)		
Proposal Number:	130.26NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Transportation
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	130.26NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Judy Johnson, x4891

Section 2: Executive Summary

Gravel, debris, silts, automotive fluids, leaves, and glass in roadway and bicycle lanes contribute to accidents, injuries, street flooding, and pollutant discharge into the drainage system that flows to Bellevue's streams and lakes. Street Cleaning (Sweeping) cleans bicycle lanes, arterial roadways, neighborhood streets, responds to pick up traffic accident debris and removes traction sand applied during snow and ice response. This work assists in the prevention of urban flooding during rain events by removing leaves from the roadway and catch basins. Street sweeping protects fish and animal habitat especially following snow and ice events; it is critical to the health and beauty of Bellevue's natural waterways such as Phantom Lake, Lewis Creek, and Coal Creek. This work is required by the National Pollutant Discharge Elimination System Municipal Stormwater Permit issued by the State Department of Ecology. Half of the program represents revenue from the Utilities Dept.

Section 3: Responsiveness to Request For Results

This proposal provides resources for Street Sweeping activities which remove gravel, dirt, broken glass, litter, sediments and other debris from the surface of the roadway and bicycle lanes. Street sweeping helps prevent loose materials such as leaves, gravel or sand, from decreasing the friction between the car and bicycle tires and the roadway surface that can negatively impact the safe use of the transportation system. The proposed service levels include sweeping bicycle lanes twice a month, arterial streets monthly, neighborhoods two to three times a year. There is also a need to clean up traction sand as soon as possible after snow response however emergency response/recovery costs are not proactively budgeted at this time.. The motion of the larger vehicles pushes the loose sand, glass and debris toward the curb line, causing safety problems for bicyclists. One objective of this work is to capture and dispose of organic and non-organic materials before they can enter the drainage system and the City's water courses. Street cleaning also reduces flooding caused by blocked or clogged drainage structures designed to drain runoff from street surfaces and saves the City money because it is less expensive to remove the materials before they enter the enclosed drainage system. This is especially critical in the fall when leaves often plug storm grates causing roadway flooding.

REDUCED POLLUTANTS - To protect water quality, Bellevue manages storm water runoff in a number of ways; street sweeping is the first step in a chain of &best management& practices. The City operates under a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the state Department of Ecology. This permit is a requirement of the Federal Clean Water Act.

INNOVATION –Staff-implemented cost saving ideas continue to stretch sweeping resources. Ideas such as shifting from an every-day cleaning of both pieces of equipment to alternating cleanout schedules to clean them three times a week and leveraging of NPDES grant funds to install kits on the sweepers that allow faster and easier cleanout by mechanically lowering the screens have helped us despite a growing workload with no new resources. Each of these improvements increased the time the equipment is providing service while decreasing hours per unit spent on cleanout, decreasing water use at the maintenance yard, and decreasing amount of vault cleaning required at the yard. Unfortunately the current sweepers are experiencing a lot of down-time and Fleet is requesting early replacement.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

EVIDENCE AND LOGIC SUPPORTING THIS PROPOSAL – The 2014 Budget Survey ranked maintaining existing streets and sidewalks as the #6 service, and keeping streets clean as #7 out of 39 total services (up from #17 in 2012). Each area designated for street cleaning has a legitimate need for the service, and no one type of roadway can be eliminated from the program without negative impacts and noncompliance with the NPDES permit. This proposal provides separate frequencies of service to arterial roadways, bike lanes and neighborhoods based on the type of use and impact to environment and traffic.

CONSIDERATION OF “RIGHT-SIZE” LEVEL OF SERVICE AND SCALABILITY – Street Maintenance staff occasionally compares the COB service level to nearby cities, compares in-house costs to contracted services, and tracks the customer calls. COB sweeping costs per unit remain below local contracted sweeping services. The City has been running two street sweepers for many years, and through many increases in motorist and bicycle lanes, traffic, annexations, weather events, and population. Over time, the addition of many miles of bicycle lane which requires more frequent service – the neighborhood sweeping task has been gradually scaled down to about two visits per year rather than the three-four provided 10 years ago. Since this change, the customer satisfaction rating has gone down from a consistent 97-98% to 86-94% overall and 82-86% in neighborhoods. The resource is particularly squeezed during the leaf pickup season in the fall and after a snow or ice event; during those times customer calls increase and staff shifts to ten or even twelve hour days to add available hours for each sweeper. All section staff members are trained to operate the equipment, so extra hours of equipment time can be provided by diverting on-duty staff from other duties. Agency comparison calls have indicated the COB sweeping resources are low per mile swept compared to the surrounding area. This program has been reduced and reinstated through several budget processes because the City Manager knew how important this service is to our citizens, including environmental and safety impacts. The Utilities, Surface Water fund is now funding half of this service.

SCALABILITY: This program has automatically scaled down by the addition of infrastructure without added resources; resulting in the frequency of service in neighborhoods over the last 15 years from 4 times per year to 2. As mentioned above; the customer satisfaction rating has gone down over those years. Because of these trends, scaling back this service is not recommended.

“HEALTHY AND SUSTAINABLE ENVIRONMENT” –

By removing the sand and gravel from the roadway and bike lanes, and picking up the pollutants and sediments before they can enter the waterways, the following Healthy and Sustainable Environment values and factors are supported by the Street Cleaning proposal:

- [AIR] – “Expanding and maintaining safe and convenient walking and biking facilities/infrastructure.”
- [WATER] – “Surface and Storm Water Management” – “Ground and surface waters may be degraded by both natural and human-made pollutants such as sediment... and organics.”
- [NATURAL ENVIRONMENT] - “Services and Infrastructure that reliably ensure public health and safety, as well as protect the environment.”
- [BUILT ENVIRONMENT] – “Clean Streets” – “Streets free of waste and debris are important to the environment because they help facilitate safe biking, prevent flooding, and reduce dust particles in the air.”

Several of the citywide purchasing strategies are stewardship-oriented; “BEST VALUE”, “RIGHT-SIZED”, AND “CONSIDERING ALTERNATIVE SOURCES”. Knowing that stewardship is an ongoing City Core Value, the Street Maintenance staff occasionally compares the COB service level to nearby cities, compares in-house costs to contracted services, and tracks the customer calls; all in an effort to make certain the service is right-size and customers are getting best value. Staff is always looking for innovative options and process improvements.

SAFE COMMUNITY AND IMPROVED MOBILITY [FLOOD PREVENTION]

Bellevue's drainage system has been designed to hold and carry water during storms to prevent flooding.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Removal of excess materials prior to entry into these systems, and removal of blockages such as leaves from the storm drain grates improves safety because it reduces the possibility of flooding for businesses and residences. It also improves mobility because a properly maintained drainage system reduces roadway flooding and the resulting impacts on mobility.

QUALITY NEIGHBORHOODS [PUBLIC HEALTH AND SAFETY] –

Bellevue values neighborhoods that are attractive, well-maintained, and safe and seeking proposals that result in clean streets, sidewalks, and other public spaces. Neighborhood Mobility Factor – providing “healthy choices” for travel on foot or by bike.

RESPONSIVE GOVERNMENT [STEWARDS OF THE PUBLIC TRUST] (MINIMIZING RISK AND LIABILITY)

Sweeping is a required component of compliance with regulatory requirements (National Pollutant Discharge Elimination System and Endangered Species Act). This also reduces the likelihood of claims due to runoff that has overflowed the roadway and entered private properties. This work prevents additional catch basin cleaning that would otherwise have to be done after the materials washed into the catch basins. Removing sediment and debris once they have entered the drainage system is far more expensive.

INNOVATIVE, VIBRANT AND CARING COMMUNITY [BUILT ENVIRONMENT] AND ECONOMIC GROWTH AND COMPETITIVENESS [BUILT ENVIRONMENT]

People want to be in a clean, well-maintained “place”. Maximizing the effectiveness of the drainage infrastructure aids in the City's economic competitiveness and advances the standard of living in the community.

PARTNERSHIPS

Transportation and Utilities (Storm and Surface Water) share in the cost of this proposal as it benefits both Departments. Police is a partner when they need an intersection cleaned after a traffic accident or when a passing truck spills gravel into the roadway and Neighborhood Services sends requests for street sweeping assistance when coordinating neighborhood fitness events. Sweepers are also used to assist Utilities for clean-up after emergencies such as water main breaks. Sweeping requests are also received to remove debris after city-community events.

Section 4: Performance Measures and Targets

Code	Performance Measure	<u>2010</u> Actual	<u>2011</u> Actual	<u>2012</u> Actual	<u>2013</u> Actual	<u>2014</u> Target	<u>2015</u> Target	<u>2016</u> Target
130.0030	Customer satisfaction rating for clean streets	90.4%	94%	96%	96%	90%	90%	90%
130.0031	Number of routine sweeping requests per 1,000 Customers	0.01	0.34	1.06	0.1	0.5	0.5	0.5
130.0032	Number of street miles swept (lane miles serviced)	4,952	3,962	3,601	2,892	5,650	5,650	5,650

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

No new costs. Primary operating costs are sweeper brooms, disposal fees, & employee costs such as safety vests.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

COB Surface Water Utility reimburses the General Fund for one half of program costs.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	3.00	3.00
LTE	0.00	0.00
Total Count	3.00	3.00

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	106,680	109,135
Personnel	270,294	280,578
Supporting Revenue	189,467	195,773
Rev-Exp Balance	-187,507	-193,940

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Capital Project Delivery		
Proposal Number:	140.01NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.01NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Regan Sidie, x6857

Section 2: Executive Summary

Capital Project Delivery develops and implements cost-effective capital investment projects necessary to accomplish the City's \$211 million 2015-2021 Utility Capital Investment Program (CIP) and is necessary to continue to provide utility services to Bellevue's citizens including providing drinking water, removing wastewater, managing surface water runoff, and eliminating impacts on the health of Bellevue's streams, lakes, wetlands, plants, and wildlife.

Section 3: Responsiveness to Request For Results

This proposal includes staff and resources needed to develop, manage, design, and construct projects that accomplish the \$211 million 2015-2021 CIP (average \$30 million per year).

CIP Management (3.41 FTE & 0.55 Temp. Staff in 2015 – 3.41 FTE & 0.83 Temp. Staff in 2016): CIP management develops the CIP for Council adoption. The process includes stakeholder review of CIP project criteria; capital program & project recommendations; opportunity for public input & Environmental Services Commission evaluation; monitoring CIP status as it is implemented; and assessment of the program's cost effectiveness. Process improvement and innovation are employed to boost productivity and effectiveness.

CIP Design (11.75 FTE & 0.50 Temp. Staff): CIP design involves selecting best project alternatives based on a decision model that includes economic, social, and environmental impacts. Condition assessment of utilities facilities determines future capital improvement needs. Engineering drawings, specifications, and cost estimates are developed for each design, along with securing required permits and property rights if needed. Quality Control and Assurance is provided throughout design. The design process uses a collaborative approach for decision making that includes staff from throughout Utilities and other stakeholder departments. In order to deliver the proposed level of CIP projects the proposal includes a new design engineer in 2015. Without the addition of this position, the capital program needs will not be met. This proposal also includes a new engineering technician (LTE) and engineer in 2015 to implement 3 new CIP programs to assess the condition of stormwater pipelines and wastewater pressure pipelines, and to combat intrusion of stormwater into the wastewater pipe system. Implementation of these new CIP programs depends on the addition of these 2 new positions. The programs are essential in order to determine the remaining life of these utility facilities and develop a well-informed plan for rehabilitation and replacement of these aging pipelines.

CIP Inspection (8.85 FTE in 2015 – 9.85 FTE in 2016): CIP Inspection Services manages and inspects construction contracts to assure that bidding procedures are followed; that facilities are constructed in accordance with approved drawings and specifications and all permit conditions are met; that construction impacts on residents and businesses are minimized and the health and safety of the public is protected during construction; and that project costs are reviewed and accurately accounted for. In order to deliver the proposed level of CIP projects the proposal includes one new CIP inspector 2015 and a second new CIP inspector in 2016. Without the addition of these positions, the capital program needs will not be met.

Design/Construction Support (2.20 FTE): The Operations and Maintenance (O&M) Division performs plan

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

review and field verification during development of plans and specifications for CIP projects. O&M staff also perform field operations supporting CIP projects under construction, including pre-construction meetings, coordination with contractors, providing site access to contractors, and performing water main shut-downs.

Efficiencies/Innovations: To improve flexibility and efficiency, and reduce costs:

- Staff are cross-trained to work on all three utilities.
- Engineering standards allow efficient development of contract documents by reducing redundant specifications.
- Projects are sized and packaged to attract as many contractors as possible to obtain better bids.
- Developed a programmatic, multiple-project SEPA to shave several months of permit review for each project.

Mandates & Contractual Agreements: Capital Project Delivery ensures that these obligations are met.

- Washington State Department of Transportation (WSDOT) requires utility relocations ahead of freeway work.
- Comprehensive and utility system plans policies are met. Interagency agreements are upheld (Sound Transit).

Cost Avoidance:

- Financial cost of paying higher bid prices if projects are delayed and bid during a construction boom period
- Economic cost of having to delay development projects awaiting system capacity
- Financial and environmental costs associated with water main breaks, wastewater overflows, and flooding

Short- and long-term benefits of this proposal:

- Short-term benefits: This proposal assures that appropriate budget is available, and that cost-effective design and construction of CIP projects ensures that utility services are maintained or improved, that utility lifeline systems (pipelines, pump stations, reservoirs) continue to operate consistent with state and federal regulations, and that sufficient capacity for growth is provided. These outcomes all support a healthy and sustainable environment for Bellevue's citizens.
- Long-term benefits: The existing utility infrastructure is valued at over \$3.5 billion. These assets need to be designed and constructed to provide service life for 75 to 100+ years. Maximizing asset quality and lifespan provides for good stewardship of both fiscal and natural resources, in addition to a sustainable utility infrastructure that provides customers with reliable service.

Describe why the level of service being proposed is the appropriate level:

The current level of service is designed to accomplish the Council-approved CIP on schedule and within budget. The proposed annual investment for the CIP is based on Asset Management Program (Proposal 140.11NA) recommendations to minimize the life cycle cost of ownership/operation of the water, wastewater, and stormwater systems, and to assure we don't prematurely replace assets that should be repaired and maintained. This practice manages infrastructure assets at the lowest practicable life cycle cost while meeting service levels expected by customers and required by state and federal regulations, at an acceptable risk level. Underfunding this capital investment will increase the total cost of system maintenance and replacement over time. Capital Project Delivery is only scalable if there is a corresponding reduction in the Utilities CIP. Scaling back the CIP will result in a lower level of service, which requires that Capacity for Growth projects be deferred and progress on replacing aging infrastructure and advancing environmental preservation be slowed.

Factors addressed by this proposal in the Healthy and Sustainable Environment outcome:

- Factor 1: Air. Enhanced landscaping and restored tree canopies provided by stream restoration projects help to cool and clean the air. Periodic rehabilitation of water and wastewater pump stations improves pump and motor efficiencies, thereby conserving energy and reducing greenhouse gas emissions.
- Factor 2: Water. CIP programs and projects ensure a continued reliable supply of clean drinking water; reliable, safe wastewater removal; and that surface water run-off from rain and storms is controlled to

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

minimize negative impacts such as erosion, flooding, and water quality.

- Factor 3: Natural Environment. Implementation of the CIP ensures that lakes, streams, and wetlands will be protected from wastewater overflows. Improved native landscaping provided by stream restoration projects helps manage water runoff and provides habitat for fish and wildlife. The enhanced natural environment provided by stream projects works hand in hand with parks and trails to promote healthy living.
- Factor 4: Built Environment. Full life cycle cost analyses are used to make well informed decisions on CIP projects to replace or rehabilitate utility buildings and facilities such as pump stations and water reservoirs.

Purchasing Strategies in the Healthy and Sustainable Environment and Other Outcomes:

- Natural Environment & Air: Many CIP projects manage, maintain, preserve, and restore natural environments and the habitats they provide. These projects conserve natural resources through restoration of streams & adjacent green spaces, and prevent/remove release of pollutants that degrade the natural environment; stream restoration projects reduce air pollution through clean air practices such as planting landscaping that enhance air quality by filtering pollutants.
 - Water: CIP implementation ensures that water resources are managed and protected. The maintenance and management of infrastructure ensures a safe, reliable supply of drinking water and wastewater removal. Natural water resources are protected by programs that prevent pollution of surface water. Water quality is further protected by programs to control erosion and flooding. This natural water environment is essential to providing a suitable environment for plants and wildlife, and the recreational needs of the community.
 - Built Environment: Construction site sweeping and other erosion control and pollution prevention measures keep our built environment clean and free of waste, debris, and toxic materials.
 - Safe Communities require clean reliable water, wastewater, and stormwater systems.
 - Quality Neighborhoods benefit from amenities related to stream restoration projects, including planting new trees and plants to restore and enhance attractive natural settings. Hiking trails are often located alongside these stream projects to provide recreational activities that contribute to an Innovative, Vibrant, and Caring Community.
 - Economic growth and thriving business districts critical to Economic Growth and Competitiveness rely on robust utility systems, and Improved Mobility is aided by providing reliable and functioning utility pipelines. Utility main breaks can damage streets and subsequent repair work can block or impair traffic. Stormwater pipelines carry surface water from roadways to ensure that flooding does not impede traffic flow. Utility WSDOT relocations help to improve the transportation systems that bring people to and from Bellevue.
- Citywide purchasing strategies addressed by this proposal:
- Provide the best value in meeting community needs: Preferred CIP project alternatives are based on a triple bottom line decision model that includes economic, social, and environmental impacts.
 - Provide for gains in efficiency and cost savings and ensure that capital project delivery is “right-sized:” Cost-effective and efficient management, design, and inspection of Utilities CIP projects use the triple bottom line decision model to ensure that projects are appropriately sized.
 - Leverage collaboration with other City departments and external organizations to save costs.
 - Eliminate lower value-added activities: Biennial review of the CIP gives the opportunity to prioritize work. By determining where capital investment is needed most, lower value-added activities are removed from the CIP.
 - Promote environmental stewardship: The CIP supports stream restoration and landscaping projects, restores streams and green space, and protects the natural environment from polluted water runoff.
 - Consider short-term and long-term financial impacts: In the short term, quarterly CIP monitoring is performed to assess the program's cost effectiveness. Long-term (75+year) planning assures that utility facilities continue to function and that funding will be available to replace these systems as they reach the end of their useful life.

Internal: Transportation coordinates roadway projects to assure utility needs are addressed prior to roadway work; Parks looks for opportunities for joint use facilities, i.e. a new culvert under Coal Creek Parkway will

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

include a park trail. External: King County/Metro: Utilities recently constructed a joint sewer transmission project that resulted in savings for each agency; WSDOT: Coordinating utility relocations with freeway improvements.

Cost Savings: Since the economic recession that began in late 2008, contractor bid prices for Bellevue Utilities projects had fallen dramatically due to the lack of competing construction projects. Projects were awarded at 25% to 50% below Utilities engineer's estimates and continued to remain low in the years following 2008. Utilities accelerated project delivery as much as possible to take advantage of the favorable bidding climate.

Consequence of not funding the proposal:

- Growth: Insufficient water and sewer system capacity (storage, supply, and conveyance) can result in development moratoriums imposed by the Washington State Departments of Health or Ecology. There would be cost consequences to Bellevue (lost revenue) if development was halted awaiting utility capacity projects.
- Lawsuits, state/federal fines, and penalties due to failure to meet mandated levels of service
- Increased property and environmental damage due to increased frequency and severity of system failures; increased water and air pollution due to lack of environmental preservation projects
- Increased maintenance costs to repair and operate equipment in utility facilities (such as pump stations).
- Ultimate failure of utility infrastructure would severely degrade public health and safety and radically alter the public's standard of living due to loss of water for fighting fires, lack of safe drinking water delivery, and lack of means to dispose of human waste.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0108f	Utilities: Percent of CIP design projects completed on schedule	65%	66%	69%	64%	80%	80%	50%
140.0111f	Utilities: Percent of Public Work contracts requiring warranty repair	9.52%	0%	5%	0%	5%	5%	5%
140.0114f	Utilities: Percent of Public Work contracts completed under the Original Bid	85.71%	85.71%	72.22%	100%	90%	90%	90%
140.0183f	Utilities: Percent of total CIP expended vs budgeted	65.13%	66.83%	49.78%	66%	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

2015: \$54K, Supplies for inspection staff, new engineering FTEs, and training. 2016: \$57K, Supplies for inspection staff, new engineering FTEs, and training. The increased costs are related to the addition of new engineering staff needed to implement the CIP program, including 3 new CIP programs for utility pipeline condition assessment.

5B: Are one-time expenditures included in this proposal?

Vehicle with City radio for new inspector 2015: \$42.5K; Vehicle with City radio for new inspector 2016:

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	25.21	26.21
LTE	1.00	1.00
Total Count	26.21	27.21

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	249,357	297,947
Personnel	3,379,058	3,602,692
Supporting Revenue	0	0
Rev-Exp Balance	-3,628,415	-3,900,639

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utility Asset Management Program		
Proposal Number:	140.11NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.11NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Bill Heubach, x2067

Section 2: Executive Summary

This proposal funds the Utility Asset Management Program (AMP), to determine the resources needed to operate, maintain, repair, and eventually replace or rehabilitate utility system assets and assures they are used cost effectively. Bellevue Utilities operates more than \$3.5 billion worth of utility assets such as pipelines, pump stations and reservoirs. AMP develops and employs strategies to assess asset condition so that service levels expected by customers and required by state and federal regulations are provided at the lowest cost. More than 50% of Utility assets are at least halfway through their useful life. As assets age they continue to deteriorate; maintenance, repair, rehabilitation and replacement costs increase, making it even more critical that resources are used effectively.

Section 3: Responsiveness to Request For Results

What does this proposal buy?

The AMP manages city-owned water, sewer, and stormwater assets valued at over \$3.5 billion by optimizing the cost of acquiring, operating, maintaining, renewing, and replacing assets while meeting the service levels expected by the community and required by state and federal regulations, at an acceptable level of risk. The AMP develops accurate asset information and makes it readily accessible; monitors and evaluates asset condition, performance, criticality and costs; and uses life cycle analyses that incorporate triple bottom line principles (economic, environmental, and social costs and benefits) to make capital and maintenance decisions. The utility system replacement value is over \$25,000 each for the approximately 130,000 residents of Bellevue and neighboring communities that depend on Bellevue's utility systems. Consequently, smart, cost-effective system management is imperative.

Most of Bellevue's utility assets such as buried pipes, pump stations, and drinking water storage tanks are more than halfway through their useful life. Maintenance, repair, rehabilitation and replacement costs, and failures are increasing. The AMP helps ensure that the resources needed to operate, maintain, repair, renew, and eventually replace aging assets are available and used cost-effectively. Without the AMP, information needed to determine when and how to cost-effectively repair, rehabilitate and replace Utility assets so that current service levels can be maintained would not be available. The AMP pays for itself by minimizing the life cycle cost of owning an asset. The asset management program is foundational to many other Utility proposals, including utility operations & maintenance requirements; R&R account funding; utility comprehensive planning; and development of the CIP programs that fund asset replacement. Asset Management includes management of the utility mapped inventory. Utility staff, developers, and customers need accurate, easy-to-read and accessible maps of city utilities, and the state mandates record drawing archival requirements.

Staffing: This proposal includes funding for 4 FTEs, 1LTE and a part time student intern (temp budget).

1.33 Engineers (33% Engineering Manager, 67% Engineering Supervisor, 33% Sr. Engineer), 67% Sr. Engineering Tech, and the intern analyze asset condition, criticality and performance and to estimate the funding resources needed to maintain asset performance and service levels. Asset characteristics and system analyses are used to determine asset criticality, the likely effects of failure on system performance, and the effect on service levels. Cost-effective strategies are then developed to maintain, repair, rehabilitate or replace assets to achieve target service levels. Forecasting resources needed for asset renewal and replacement helps avoid future rate spikes.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Three Engineering Techs maintain utility maps (record drawings) and asset inventory. Record drawings and associated asset data provide the critical inventory information needed to manage assets systematically. Asset attribute data (e.g. size, pipe material, date installed) is organized in databases and then 'pushed' to various enterprise computer systems (e.g. Maximo for asset inventory data; MapShot for electronic map and data access). Two of the Engineering Techs are FTEs who continuously update utility maps to add new assets, make corrections based on field staff observations, and archive drawings per state requirements. One of the Engineering Techs is an LTE hired to support the conversion from AutoCAD to GIS platform; that position will expire in 2015.

Other Stakeholders: Planned condition assessment of water, wastewater, and stormwater pipes is coordinated with Transportation's overlay program, other Transportation and Parks CIP projects and private utility projects (e.g. PSE). Pipe repairs and replacements are resolved prior to street resurfacing, reducing neighborhood disruption and street restoration costs. Transportation and Parks use enterprise-software to manage assets such as trails, sidewalks, and roads; any improvements to software tools would include collaboration with those departments.

Mandates and contractual agreements include Bellevue's Municipal Stormwater (NPDES) Permit requiring mapping of certain stormwater assets. The State of Washington requires accurate system drawings and record archival, documented per the Local Government General Records Retention Schedule.

Why is service level appropriate? Scalability?

Asset management is a proactive, strategic program for utility renewal and replacement that is less costly than running to failure. A robust AMP minimizes the cost to provide acceptable utility service levels. This proposal is to maintain Bellevue's Asset Management Program. It is proposed at minimum staffing resources to deliver and advance the required program and maintain up-to-date system maps and asset data.

If this proposal were not funded, consequences would include:

Increased failures and the associated environmental impacts would likely result in state-mandated system improvements. Damage claims would increase. State-issued consent decrees would result in loss of public confidence and rate increases to meet decree requirements. Service would decline as system failures and service interruptions increase. Sporadic sharp rate increases would be required to repair system failures and overall higher rates in the long term. Reduced responsiveness to staff, developers, and citizens about utility facilities. Third-party claims against the City would increase since utility failures such as watermain breaks, sewage overflows and stormwater flooding often damage adjacent buildings and infrastructure. Damage to the environment will also increase. The quality of data available to prioritize work on system deficiencies and long term capital planning will decline. Reactive rather than proactive system work is less cost-effective. Trend data on system performance, failures and claims could not be produced or analyzed. How does this proposal relate to cause and effect maps?

This proposal supports Healthy and Sustainable Environment Factors 2. Water, 3. Natural Environment, and 4. Built Environment. AMP supports a reliable supply of safe drinking water and safe, efficient removal of sewage and safe management of surface waters. Minimizing system failures means reduced environmental damage from flooding and sewage backups that pollute and erode lakes, streams & wetlands. Efficient asset management is a sustainable and coordinated approach that conserves resources.

Quality Neighborhoods, Safe Communities, and Innovative, Vibrant & Caring Communities each require reliable, safe, and affordable clean drinking water, sewage removal, stormwater runoff drainage management and flood control. Reliable and inexpensive utility service delivery supports Economic Growth & Competitiveness.

Purchasing Strategies in the Healthy & Sustainable Environment outcome: The AMP supports continued delivery of water, sewer, and stormwater services in an environmentally sensitive & sustainable way by minimizing the cost of service over the life of assets, while maintaining expected service delivery. It assures that assets are replaced before the risk of failure is unacceptable while at the same time making sure assets aren't replaced prematurely. Asset management is proactive system management rather than responding after systems fail. It is future-focused, with a 75-yr forecast of resources needed for system replacement,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

considering inter-generational cost equity, and precluding sharp rate increases. The Asset Management Program reduces the chance of failure and reduces the likelihood of large damage claims. Safe, reliable utility systems mean less damage to the natural environment from flooding and erosion. Maximizing asset component life means efficient system replacement conserves resources and avoids wasting materials.

Citywide purchasing strategies:

Best Value; Sound resource management; Best business practices: Evaluation of asset condition leads to cost-effective management strategies for maintenance and replacement. Life-cycle cost analysis that considers all costs, including planning, design, construction, operations, maintenance, risk of failure, decommissioning, and replacement is a core asset management principle. Triple bottom line (economic, environmental, and social) costs and benefits are considered in the life cycle cost analysis. The US Environmental Protection Agency defines asset management as a best business practice for Utility providers. Eliminate low value-added activities. The AMP determines the criticality of each utility asset toward meeting service level goals while reducing risk. Fewer resources are allocated to less critical assets. The AMP focuses on right-sizing investments, yielding efficiency gains and cost savings. A key component is defining target customer service levels. Once defined, the most cost-effective asset management strategies are selected to meet them. This iterative process assures service levels commensurate with available resources. Collaboration with external organizations. Bellevue participates with other U.S. utilities to determine best management practices for AC water mains (short-lived, fragile pipe that comprises over 45% of Bellevue's water system piping) through the Water Research Foundation. Innovative and Creative. The AMP continually evaluates and when appropriate implements new technologies, such as AC water main management strategies and industry technologies for asset assessment, maintenance, and replacement. Short and long-term financial impacts. The Asset Management Program forecasts resource needs decades into the future to minimize rate increases and assure intergenerational cost equity. Evidence-based approach to HSE: Utility failures can seriously damage the environment. Asset management reduces the likelihood of high-consequence asset failures. Asset management decisions are data-driven. Asset life forecasts are based on risk, the probability of failure multiplied by the failure consequences. The failure probability is based on asset condition, install date, performance of similar assets, material, etc. Failure consequences include impact on customer utility services, life safety, damage to buildings and other infrastructure, and the environmental, and social impacts such as beach closure. Near-Term Benefits: The AMP helps Bellevue provide utility services cost effectively by providing quality data and decision-making tools. By monitoring asset condition, performance, and criticality, required improvements are identified and cost effective operation, maintenance, repair, and replacement decisions are made. Trends in system failures and vulnerabilities can be identified, and priorities established. Longer term: The AMP is essential to providing municipal utility services as cost-effectively as possible by minimizing the total life cost of utility components while maintaining service target levels and minimizing business risk. Long-term resource needs can be more accurately forecast.

Efficiencies/Innovations: The AMP continually finds ways to better manage Bellevue's utility systems cost effectively while maintaining customer service by improving and analyzing asset data. Examples:

The AMP develops the data needed to determine how large the Utility Renewal and Replacement (R&R) reserve accounts should be so that resources are available to replace assets when it makes sense to do so. Consequently, Bellevue's utility rates will become even more competitive in future years, when water and sewer service providers around the country are expected to double to quadruple rates over the next 20 years (US Mayor's Report, March 2010). An independent consultant review of AM strategies and funding forecasts in 2012 validated reducing Water Utility R&R fund balance requirements and resulted in smaller rate increases in 2013-14 and beyond. Current mapping processes would require more staff labor as the utility CIP continues to grow (more system renewal projects.) Analysis of alternative process resulted in a move to a GIS-based system that will streamline data entry, align with best industry practices and city enterprise software, and support future needs such as mobile access to utility maps and data. The mapping platform migration will occur in 2014-16. In 2012, a risk-based procedure was developed to prioritize asbestos cement water mains for replacement (the most significant investment in utility asset renewal, at more than \$6 million/year). The resulting 5-year

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

plan for pipe replacement facilitates identifying wastewater or stormwater assets (in the same streets) for concurrent condition assessment and repair. Planned utility improvements are mapped against transportation overlays and street projects, to coordinate schedules, saving money and minimizing disruption. As sewer pipes have aged, the number of identified pipeline defects that could lead to blockages and overflows has increased. The backlog of defects to be repaired also increased. The AMP prioritized the defects for repair and determined that in some cases it would be more cost-effective to rehabilitate or replace entire pipe sections instead of making multiple point repairs. A pipeline replacement plan is being developed for sewer pipelines, and a new CIP program for pipe replacement (S-66) was initiated in 2013. The Asset Management Program collects, analyzes and maps asset data. After the conversion to a GIS-based mapping system is implemented, the asset data and mapping that is stored in multiple data bases (e.g., Maximo, Mapshot, AutoCAD, Oracle, ArcMap, etc.) will be integrated within an enterprise system so that it is more readily available to staff instead of just those staff that have access to the different data bases and programs.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0082f	Utilities: Condition related water main failures per 100 miles of water main	4.36	2.75	2.59	3	5	5	5
140.0091	Utilities: Wastewater overflows caused by pipeline failures	1	1	0	5	2	2	2
140.0097	Utilities: Flooding incidents caused by drainage system pipeline failure	0	5	2	1	5	5	5

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue

5D: Are changes to the existing service levels included in this proposal?

This proposal contains one LTE that was not reflected in the 2013-14 proposal. It is not a new LTE; it was added with budgeted resources as the most cost effective approach to prepare mapped data for the migration to a GIS platform. That LTE position is scheduled to expire in Sept 2015. The changes seen in FTEs related to this request do not represent a net decrease in the total number of authorized departmental FTEs. The proposed -1.34 FTE changes seen in this proposal reflect a department-wide effort to better align existing staffing resources to departmental service delivery.

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	4.00	4.00	Expenditures	45,350	81,551
LTE	1.00	0.00	Personnel	558,927	508,094
Total Count	5.00	4.00	Supporting Revenue	0	0
			Rev-Exp Balance	-604,277	-589,645

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Mains and Service Lines Repair Program		
Proposal Number:	140.13NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.13NA	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Kipp Fockler, x2923

Section 2: Executive Summary

The primary objective of the water repair program is to fix system breaks, stop leaks, protect drinking water quality, restore water service to customers, and mitigate environmental damage. The City also benefits financially from efficient repairs that minimize revenue loss and claims for damages. Failure from the water system infrastructure can have catastrophic consequences, including damaged property, roadways, the natural environment and water service interruption to homes and businesses. While Utilities has sound water maintenance and capital improvement programs, main breaks can occur at any time and are increasing as the water infrastructure ages. Examples of services included in this proposal include leak detection services and repairs to broken, leaking or malfunctioning water mains, service lines, fire hydrants, and control valves.

Section 3: Responsiveness to Request For Results

Customers expect and depend on safe and reliable water service to meet their household and business needs. The City's drinking water system includes 620 miles of water mains, 10,000 valves, 40,810 water service connections, and 6000 fire hydrants. The water infrastructure is aging and most of the system is well past its mid-life. As a result, the drinking water system is experiencing more failures at increasing costs. This proposal requests the resources necessary to quickly respond to and repair drinking water infrastructure in order to minimize service disruption, property damage and claims for damages, revenue loss and the protection of drinking water quality.

Water main breaks and service line leaks are performed as reactive maintenance and are demand-driven services dictated by the number of breaks and leaks that occur. Timely repairs are completed to maintain water service and drinking water quality, mitigate environmental damage, minimize claims for damages and reduce traffic impacts.

Repair needs are discovered through inspections, maintenance activities and emergency service requests generated by citizens, staff, and contractors within the City. Services include 24-hour response to perform emergency repairs. Repair crews often work in very difficult conditions including deep trenches and heavy traffic areas. Managing the impact on traffic and protecting pedestrians and motorists is a priority at water main repair sites.

The repair program also provides leak detection services, system inspections, and protects public safety by quickly fixing any broken City-owned fire hydrants and mainline valves which is critical to controlling the flow and delivery of water during fire suppression. Based on previous 10 year trends, there are 30 main break repairs and over 200 service leak repairs per year. Utilities complete approximately 650 hydrant repairs and 120 valve repairs per year.

Maintenance crews have key roles in responding to disasters and major emergency events. Having in-house staff available to respond requires 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible emergency events include extreme rain/flooding, snow/ice events, windstorms, earthquakes.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Mandates and Contractual Agreements

- WAC 246-290-230 Distribution Systems - Sets requirements for fire flow for firefighting purposes.
- Uniform Fire Code 903.4.1.2 Testing and Maintenance - Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective.
- Safe Drinking Water Act 1974 (SDWA) - Effective repair activities support Utilities' efforts to maintain a safe, reliable water supply that meets all SDWA standards by lessening the potential for water contamination through leaking pipes and service lines.
- Washington State Municipal Water Law 2003 (MWL) and WAC 246-290 Water Use Efficiency Rule (WUE)/Distribution System Leakage Standard - Require water systems to manage water loss.

Efficiencies/Innovations: Utilities perform leak detection inspections to proactively identify small leaks on the public system not visible on the ground. Early detection prevents a small leak from becoming a catastrophic failure that is more expensive to repair and may cause substantial property damage and claims. In addition, staff performing main and service repair are cross-trained to perform other planned services to address both preventive and reactive maintenance needs.

Short- and long-term benefits:

- Short-term benefits: Repair programs help create a healthy environment by minimizing water service interruptions and economic impacts to the customers while providing programs that allow us to efficiently deliver drinking water where and when it is needed for customer consumption and to firefighting.
- Long-term benefits: Repairs help extend the life of the infrastructure and save replacement costs. Repairing the water system is an investment to maintain a reliable water supply for homes, businesses and firefighting. In addition, it lowers water loss, decreases the damage to streets, minimizes traffic impacts, and reduces the duration and impacts of water services interruptions to the customer. These programs aid in more efficient energy usage, optimizing drinking water quality and supporting water conservation.

Factors in the Healthy and Sustainable Environment outcome:

- Water: Clean Reliable Water/ Clean Drinking Water. Repair services are critical to the delivery of reliable, safe, and sufficient clean drinking water.
- Environmental: Clean Green City/Conservation of resources. Repair services under this proposal conserve water and energy while promoting optimal drinking water quality. Minimizing leaks and unmetered water loss through proactive repairs saves water for other uses.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

Ensure the safe, reliable supply of drinking water to and removal of wastewater from homes and businesses by responding to and mitigating damage caused by water main breaks. Ensure that surface water runoff is controlled to minimize negative impacts such as erosion and flooding by responding quickly to stop the damaging flow of water when drinking water infrastructure fails resulting in debris eroding hillsides and yards. Restore, manage, preserve and improve natural environments and the habitats they provide by responding quickly to stop the damaging flow of water when drinking water infrastructure fails resulting in debris and chlorinated water entering streams and clogging sewer and storm pipes.

Citywide purchasing strategies:

- Provide the best value in meeting community needs. Preventing water loss helps keep water rates low and provides the best value to the community. Services minimize the loss of drinking water and conserve water resources. A 1% decrease in water loss represents a savings of \$152,000 in wholesale water costs, and \$3,000 savings in energy costs to pump the water which directly impact water rates.
- Provide the best value in meeting community needs. The repair program coordinates workload to achieve

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

maximum results based on several considerations: location, time of day, impacts from traffic and other job-specific concerns. It is not uncommon to find crews working very early in the morning, at night, or on weekends to accomplish jobs that would impact traffic or customers during regular working hours.

- Ensure sound management of resources and business practices. Repairs to water main and service lines minimize environmental impacts associated with water flows into streams or low spots, or flooding and erosion damage. This proactive approach promotes stewardship of Bellevue's environment.

Through franchise agreements Bellevue Utilities provides water service to Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0212f	Utilities: Unplanned water service interruptions per 1,000 customer accounts (target of 12 represents 492 accounts that experienced an unplanned water service interruption)	10.39	6.17	5.39	12	12	12	12
140.0215	Utilities: Water distribution system: Water loss percentage	5.4%	8.7%	2.8%	6%	6%	6%	6%
140.0246	Utilities: Number of water service repairs	285	233	217	250	250	250	250
140.0247	Utilities: Number of water main repairs	36	27	33	35	30	30	30

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

11K increase in overtime each year to reflect 6 yr. trend

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	10.45	10.45	Expenditures	513,946	510,967
LTE	0.00	0.00	Personnel	996,816	1,033,900
Total Count	10.45	10.45	Supporting Revenue	0	0
			Rev-Exp Balance	-1,510,762	-1,544,867

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Distribution System Preventive Maintenance Program		
Proposal Number:	140.14NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.14NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Kipp Fockler, x2923

Section 2: Executive Summary

Preventive maintenance services ensure the ongoing safety and operational integrity of the drinking water distribution system. Services include annual inspection and maintenance of fire hydrants, isolation valves, and system flushing (cleaning) programs. These programs extend the useful life of the drinking water system, are critical for system function and reliability, and maintain safe, high-quality drinking water for residents and businesses. Lack of adequate water system maintenance impacts the ability to quickly repair water main breaks, increases the chance of waterborne disease and problems with water quality. It could also result in fire hydrants and valves that do not work when needed for firefighting or other emergencies.

Section 3: Responsiveness to Request For Results

Residents and businesses in Bellevue expect their drinking water to be a reliable high quality product. Existing fire hydrants and valves are more than halfway through their useful life. Aging infrastructure increase frequency of component failures and costs to repair and maintain the system. Preventive maintenance activities minimize system failures and prolongs the life of the drinking water system:

- Drinking Water System Flushing Includes the cleaning the water distribution system on a 6-year cycle removes sediment and is essential to maintaining Washington Department of Health required chlorine residuals to prevent waterborne disease outbreaks. It is also critical to minimizing customer complaints about water quality.
- Flushing is a proactive program and a best management practice used to maintain compliance with federal and state drinking water quality standards.
- Fire Hydrant Maintenance includes inspecting, exercising, and maintaining fire hydrants to ensure that they function properly when needed. An aggressive and proactive inspection program enables Utilities O&M to ensure that all City-owned fire hydrants function properly when needed to protect life and property.
- Inspections and maintenance are conducted to comply with National Fire Protection Association (NFPA) standards. Fire hydrants can't be fixed in the middle of a fire response, so it is important to detect problems and correct them prior to a hydrant being needed.
- Valve Maintenance includes locating, inspecting, and exercising all 10,000 water system valves on a 3-year cycle to identify those needing replacement or repairs.

Properly operating valves are crucial to minimizing the number of customer service interruptions by limiting the area of the shutdown. Valves are also used to control the flow and direction of water for flushing. Inspection identifies valves with access problems that can be corrected before the valve is needed in an emergency.

Maintenance crews have key roles in responding to disasters and major emergency events. Having in-house staff available to respond requires 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible emergency events include extreme rain/flooding, snow/ice events, windstorms, earthquakes..

Mandates and Contractual Agreements:

- WAC 246-290-230, Distribution Systems: Dictates the characteristics of the water delivery system required for effective fire hydrant operation.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

- Safe Drinking Water Act 1974 (SDWA); Total Coliform Rule (TCR); Disinfection Byproduct Rule (DBP): Compliance with the Total Coliform and Disinfection Byproduct rules is predicated on an effective water main flushing program.
- Uniform Fire Code, 903.4.1.2 Testing and Maintenance: Fire hydrant systems shall be subject to such periodic tests as required by the chief, shall be maintained in an operative condition at all times, and shall be repaired where defective.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

- Water: Clean Reliable Water/ Clean Drinking Water; Reliable Water Supply. Services under this proposal are critical to the delivery of reliable, safe, and sufficient clean drinking water for human consumption and firefighting.
- Safe Community: Prevention/Response. This proposal provides safe, clean drinking water to the community through the flushing program. Public safety and firefighting response capabilities are supported by inspection, maintenance, and repair of all City-owned fire hydrants.
- Economic Growth and Competitiveness: Land, Infrastructure and Planning. Adequate and reliable water supply is a foundation for the City's economic competitiveness and advances the standard of living in the community.

Citywide purchasing strategies addressed:

- Provide the best value in meeting community needs. Regular maintenance and inspection supports International Organization for Standardization (ISO) fire insurance ratings. The Bellevue Fire Department has an ISO rating of 2, the highest level currently awarded in Washington State. Maintaining our high insurance rating keeps insurance premiums low for residents and businesses.
- Ensure that services are "right sized." Inspection and maintenance schedules for valves are based on American Water Works Association (AWWA) recommendations. Fire hydrant inspections are based on National Fire Protection Association (NFPA) recommendations. Unidirectional flushing is conducted per AWWA industry standards and recommendations from a 1995 study by Economic Engineering Services specific to Bellevue's system.

Hydrant inspection and maintenance is coordinated with the Fire Department. Through franchise agreements Bellevue Utilities provides water service to Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove). It is also important to note that water delivered to parts of Kirkland, Redmond and Issaquah move through Bellevue's system first, so we help our neighbors by ensuring the delivery of safe clean reliable drinking water.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0216	Utilities: Number of fire hydrant failures during a fire	0	0	0	0	0	0	0
140.0217f	Utilities: Percent of water system mains cleaned	16.03%	12.69%	12.01%	15%	17%	17%	17%
140.0220f	Utilities: Percentage of fire hydrants inspected	84.27%	50.82%	35.73%	38%	50%	50%	50%
140.0223f	Utilities: Percentage of water system isolation valves inspected	50.4%	35.97%	53.09%	32%	33%	33%	33%
140.0257	Utilities: Number of water claims paid due to system failure	10	13	8	11	5	5	5
140.0258	Utilities: Number of water claims paid greater than \$20,000 due to system failure	2	4	5	3	0	0	0
140.0264	Utilities: Percent of days per year in compliance with state and federal drinking water regulations	100%	100%	100%	100%	100%	100%	100%
140.0265f	Utilities: Number of drinking water quality complaints per 1,000 water service connections (target of 2 represents 82 complaints)	1.28	3.53	2.88	3	2	2	2
140.0378	Utilities: Total cost of water claims paid	\$195,929.00	\$301,115.00	\$271,934.00	\$237,170.00	\$200,000.00	\$200,000.00	\$200,000.00

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

One ¼ ton 4x4 small pickup. \$37k CAP sheet submitted to support maintenance programs under this proposal.

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	6.85	6.85	Expenditures	152,874	115,200
LTE	0.00	0.00	Personnel	682,433	707,706
Total Count	6.85	6.85	Supporting Revenue	0	0
			Rev-Exp Balance	-835,307	-822,906

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Pump Station Reservoir and PRV Maintenance Program		
Proposal Number:	140.15NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.15NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Kipp Fockler, x2923

Section 2: Executive Summary

This proposal provides necessary preventive maintenance and repair throughout the public drinking water system. These services extend the useful life of assets; avoid costs associated with catastrophic failures and increase system reliability while maintaining drinking water quality. Bellevue's unique topography (with elevations ranging from sea level to 1,440 feet) requires a complicated system of reservoirs, pump stations, and pressure regulating valves (PRVs) to provide safe water and adequate fire flow throughout the service area. Due to the likelihood and high consequences of failure if preventive maintenance services are not provided, this proposal supports the goals for reliability and performance of the drinking water storage and delivery

Section 3: Responsiveness to Request For Results

Funding for this proposal provides the necessary resources to efficiently deliver an average daily demand of 16.7 million gallons per day (GPD) and peak summer demands averaging 32.8 million gallons per day (MGD) to customers, and maintain storage capacity of 42.5 million gallons for fire flow and peak demand. The proposal provides resources to ensure water supply and water quality of the drinking water system, perform condition assessment, and repair/replace pumps, motors, and valves as needed. Electricity to power the pump stations makes up \$315,000 of this proposal and is based on demand.

Pump Station Maintenance, Repair, and Replacement:

Pump station facilities house the motors and pumps that move drinking water from lower to higher elevations. Pump stations include pumps, motors, pump control valves, isolation valves and power supply connections and emergency generators to maintain pumping during power failures. The 23 pumps stations are inspected frequently to look for reservoir and fencing security breaches, check pump and motor operations, lighting and electrical components, leaks, and station cleanliness. These services are critical to ensure the pump stations operate reliably 24 hours a day, 365 days a year. Preventive maintenance includes inspecting and servicing all pumps. Onsite and portable backup power supply emergency generators are tested and maintained to ensure the equipment provides power when needed during power outages. Utilities O&M uses industry accepted performance measures and strives for zero pump failures annually.

Reservoir Maintenance and Repair:

Water reservoirs maintain uniform water pressure by storing water for high water use incidents such as firefighting, emergency use, and exceptionally high consumer demand. Bellevue maintains 27 reservoirs. When demand is high, the reservoir is used as a "backup supply" to maintain consistent pressure and flow capacity throughout the system. Scheduled maintenance prolongs the useful life of these long-lived assets and avoids catastrophic failure. The intent of the program is to have zero reservoirs taken out of service as a result of drinking water quality concerns. Reservoirs are drained, cleaned and inspected on a 4-year cycle to maintain water quality or on a more frequent basis if needed based on reservoir water quality. At the time of cleaning we inspect the condition of the interior and exterior coating or membrane, review structural integrity, address any water quality concerns, and review the condition of supply pipes. This proposal allocates funding for activities including interior and exterior recoating (painting) of steel tanks/reservoirs and ensuring the seals are maintained on concrete reservoirs.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Pressure Regulating Valve (PRV) Maintenance:

PRVs regulate water pressure throughout the water distribution system. Bellevue's drinking water distribution system is controlled by 276 PRVs and 127 relief valves housed in 142 vaults in 63 distinct pressure zones. PRVs must always be ready to operate properly when needed in order to maintain adequate but not excessive water pressures throughout the water system for domestic, commercial and firefighting uses. High water pressures can cause leaks and failures in the customer's plumbing systems. Due to their criticality and based on manufacturer's recommendations, PRVs are inspected and maintained on a 5-year cycle. This proposal provides the resources needed to maintain these important assets so that they function with a high degree of reliability for the life of the valve.

Staff in this proposal are trained to perform maintenance and repairs to highly technical components of the drinking water system. This level of service is critical to reduce customer service interruptions, costly repairs and downtime to critical infrastructure. Having trained staff ensures quick response to ensure backup systems are maintained in a constant state of readiness in support of the Bellevue Fire Department's ability to fight fires within the City of Bellevue's water service area. Our maintenance activities have an impact on our neighbors as drinking water must flow through the City of Bellevue's water system before reaching areas of Redmond, Issaquah, Kirkland and Sammamish.

Through franchise agreements Bellevue Utilities provides water service to, Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove area).

Staff in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training.

Mandates and Contractual Agreements:

- WAC 246-293-640, Minimum standards for fire flow, & WAC 246-293-660, Minimum standards for system reliability: Wash. State mandates for fire flow capacity and water system infrastructure requirements.
- WAC 246-290-230, Distribution systems, and WAC 246-290-420, Reliability and Emergency Response: Washington State mandates regarding requirements for water distribution to fire hydrants and the ability of the system for sufficient water pressurization to supply hydrants during fire suppression.
- WAC 246-290-415 Water Operations and Maintenance: Washington State mandates concerning requirements for utilities facilities operations.
- Federal Safe Drinking Water Act and Washington Administrative Code (WAC) mandates reservoir cleaning based on AWWA (American Water Works Association) and APWA (American Public Works Association) recommended practices.

Efficiencies/Innovations:

The Utilities Bellevue Service Center uses Telemetry/Supervisory Control and Data Acquisition (SCADA) to remotely operate water pump stations and troubleshoot if any problems arise. Remote operations generate savings by reducing the number of on-site visits. Pump stations are equipped with variable frequency drive motors which save power costs by pumping at controlled flow rates based on demand needs. Reservoir turnover to maintain water quality is optimized using chlorine analyzer readings further lowering power costs.

Healthy and Sustainable Environment

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

- **Clean Reliable Water: Clean Drinking Water; Reliable Water Supply.** Properly functioning pumps, motors, control valves and reservoirs contribute to a water system that runs efficiently to deliver high quality, safe, reliable drinking water with minimal interruptions to businesses and homes. Properly maintained reservoirs minimize the risk of security breaches and water contamination.
- **Clean Green City: Conservation of Natural Resources.** A well-maintained water system is efficient saving energy and water. A properly maintained system minimizes failures and helps protect our waterways from environmental hazards
- **Natural Environment:** Preventive maintenance reduces the likelihood of high-consequence component failures that result in environmental damage, including overflow impacts to sensitive areas and chlorinated water impacts on the natural environment.

Purchasing Strategies in the Healthy and Sustainable Environment Outcome:

Ensure the safe, reliable supply of drinking water: Pump station, reservoir and PRV maintenance assures continued delivery of water in an environmentally sensitive and sustainable way by minimizing the cost of service over the life of assets, while maintaining expected service delivery.

- **Economic Growth and Competitiveness, Factor 3: Land, Infrastructure and Planning.** Adequate and reliable water supply is a foundation for the City's economic competitiveness and advances the standard of living in the community.
- **Safe Community, Factor 2: Response.** Firefighting response capabilities are supported by adequate water supply, flow and pressure.

Citywide Purchasing Strategies:

- **Provide best value in meeting community needs:** Cost effective maintenance strategies are provided by evaluating component condition, performing proactive maintenance and developing just in time replacement strategies.
- **Provide for gains in efficiency and cost savings:** Bellevue uses telemetry based water quality data to ensure adequate mixing within reservoirs. This data allows the utility to save on power costs by not over mixing the reservoir needlessly. In addition, pump motors using variable frequency drives (VFD's) are installed which allow pumping capacity tailored to demand further reducing power usage and costs.

Through franchise agreements Bellevue Utilities provides water service to, Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove area).

Properly maintained pump stations, reservoirs and valves provide the basis for adequate and safe drinking water. Lack of maintenance increases system failures and raises water quality issues which are public health and consumer confidence issues. Failures also impact water supply for firefighting, which is a life/safety issue.

Consequence of not funding the proposal at all:

- **Legal:** Increased violations/fines levied from environmental regulations agencies
- **Customer Impact:** Drinking water quality issues and increased public health risks leading to a loss of public confidence in the water supply. Pressure fluctuations negatively impact the water system and high pressures can damage customer's pipes.
- **Investment/Costs already incurred:** Reservoirs would need to be replaced before they reached their useful life expectancy, causing an unnecessary increase in replacement costs. Pumps would run less efficiently, resulting in higher pump station power costs and longer pump run times which would reduce the life of the equipment.
- **Other:** Increased failures, claims, and water loss due to main breaks as a result of high pressures.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Consequence of funding at a lower level: Similar to those described above.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0226	Utilities: Number of Water System Pressure Reducing Valve failures per year	0	0	0	1	0	0	0
140.0227	Utilities: Number of water pump failures per year	0	0	1	1	0	0	0
140.0228	Utilities: Number of reservoirs taken out of service as a result of drinking water quality concerns	0	0	0	0	0	0	0
140.0229f	Utilities: Percent of Water System Pressure Reducing Valves maintained	22.17%	18.87%	23.17%	18%	20%	20%	20%
140.0232f	Utilities: Percent of reservoirs cleaned	28%	28%	20%	12%	25%	25%	25%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

One-time increase of \$125,000 in 2015 to replace roofs at crossroad buildings that Parks rent from Utilities

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	4.30	4.30	Expenditures	715,615	596,024
LTE	0.00	0.00	Personnel	445,339	461,761
Total Count	4.30	4.30	Supporting Revenue	0	0
			Rev-Exp Balance	-1,160,954	-1,057,785

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Meter Repair and Replacement Program		
Proposal Number:	140.16NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.16NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Kipp Fockler, x2923

Section 2: Executive Summary

This proposal provides for regular testing, calibration, repair and replacement of City-owned water meters at established intervals to ensure meter accuracy for water and sewer revenue collection, equitable billing and rates, early leak detection for the customer, and to promote water conservation. Accurate water meters ensure fair and equitable billing for water and sewer services. Under-registering water meters result in lost revenues which are spread to the rest of the rate base. Resources in this proposal replace 2000 older water meters in accordance with AWWA and manufacturer recommendations on a 20 year replacement cycle. Meter box maintenance activities are included to ensure safe access for meter reading and to shut off the water service in the event of an emergency.

Section 3: Responsiveness to Request For Results

Test, Calibrate and Repair Large Meters:

Internal components of water meters deteriorate with heavy use and age which leads to inaccurate readings. Inaccurate readings provide incorrect information regarding usage, make leak detection more difficult, and result in lost revenue for the utility. All large meters should be tested for accuracy on a regular basis. The primary objective of the program is to maintain 280 commercial meters over 3" in size to ensure their continued accuracy. Testing and calibration is a best practice in water supply management because it provides accurate accounting and billing of water produced and delivered; supports leak detection; identification of high water users who may need assistance in reducing overall water use; supports the goal to minimize unaccounted for water. In addition, identifying failed commercial meters early minimizes the need to retroactively bill customers and supports customer service.

Small Meter Replacement: Replace 2,000 water meters annually (20-year replacement cycle):

Replacement of residential meters is necessary because meters lose accuracy and under-register (read low) as they age and should be replaced every 15-20 years based on manufacturer's recommendations and industry standards. Accurate meters support equity among the ratepayers and allow the customers to make informed choices about their water usage and conserve water accordingly.

Meter Box Maintenance:

A water meter box protects the water meter, provides the City and the customer access to their meter to monitor usage and access for meter reading and shut-off valves. Meter box maintenance activities include identifying leaks on the customer side of the meter and encouraging customers to make repairs in a timely manner to conserve water; trimming overgrown vegetation, and adjusting meter boxes to eliminate tripping hazards which can result in trip and fall claims. Utility crews mark meter box locations by painting a reflective white stripe on the curb or street. This enables crews to quickly read meters and find and shut off meters during emergencies, and is useful when customers are trying to locate their meter.

Staff included in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

events include extreme rain/flooding, snow/ice events, windstorms, earthquakes, as well as other unforeseen disasters.

Mandates and Contractual Agreements:

- WAC 246-290-496 Metering requirements: Meters must be selected, installed, operated, calibrated, and maintained following generally accepted industry standards and information from the manufacturer.
- RCW 70.119A.180 Water use efficiency requirements: It is the intent of the legislature that the department establishes water use efficiency requirements designed to ensure efficient use of water while maintaining water system financial viability, improving affordability of supplies, and enhancing system reliability.
- WAC 246-290-820 Distribution system leakage standard: Total water produced and purchased, and authorized consumption must be calculated using data from meters.

Efficiencies/Innovations: Utilities has developed reports within the customer billing system that alert staff to meters which are potentially reading low or malfunctioning. This allows for a more effective maintenance program through targeted follow-ups and works to minimize large unexpected bills to the customer.

Short- and long-term benefits of this proposal:

Short-term benefits: Meter calibration, maintenance and replacement helps create a healthy environment by providing tools that allow for (1) accurate measurement of water use; (2) efficiently read meters for accurate and prompt billing with minimal mistakes; and (3) early detection of leaks to promote timely repairs, conserve water and electricity, and prevent damage to the environment.

Long-term benefits: The proper level of preventive maintenance and repair, meter calibration, maintenance and replacement supports equity among all ratepayers and avoids lost water and wastewater revenues.

Describe why the level of service being proposed is the appropriate level/scalability:

The level of service being proposed uses manufacturer's recommendations of useful meter life to inform replacement, repair and inspection cycles. These service levels work to ensure accurate meter reads for all customers and minimize non-revenue water loss for the water and wastewater utilities and support state and federal regulations related to water conservation and metering requirements.

The services funded by this proposal support a Healthy and Sustainable Environment through accurate metering by supporting water conservation and providing the information needed to ensure accurate and equitable billing for customers.

This proposal directly supports a healthy and sustainable environment by providing efficient and accurate accountability of drinking water usage to support the delivery of a safe, reliable supply of drinking water. Accurate water meters enable Utilities to equitably collect revenues, and also help pinpoint leaks.

In addition, the sewer bill is based on drinking water usage. An effective meter calibration and replacement program supports equitable billing for both water and sewer ratepayers.

Factors in the Healthy and Sustainable Environment Outcome

Clean Green City: Conservation of Resources. Accurate meters help detect customer-side leaks and minimize water loss. Accurate water meters enhance the community's awareness and understanding of the choices they have and the consequences of those choices on water resources and their bills. Informed customers are more likely to modify their behavior for the benefit of the community and the environment in which they live. Accurate meters help reduce waste and water consumption, and increase water efficiency. Accurate readings

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

of water usage provide the customer needed information to make informed decisions about water usage and control bills.

Purchasing Strategies in the Healthy and Sustainable Environment Outcome:

- Ensure that our water resources are effectively managed and protect and conserve valued natural resources through preservation, restoration, and efficient use. Accurate measurement of the water we provide ensures greater accountability of water purchased to the consumer. It also contributes to early leak detection to minimize water waste and unaccounted for water and leakage from pipes.

Quality Neighborhoods Factor: Facilities and Amenities. Well maintained meter boxes support safe and clean, well-maintained commercial and residential properties. Responsive Government Factor 4: Stewards of the Public Trust. Accurate water meters ensure equity among the ratepayers and builds trust between the customer and the City.

Citywide Purchasing Strategies addressed by this proposal:

- Consider short and long-term financial impacts: Services under this proposal minimize non-revenue water caused by under-registering meters. A 1% decrease in non-revenue water (water loss) represents a savings of \$152,000 in wholesale water costs and which directly impact water rates. Preventing water loss helps us keep water rates low and provides the best value to the community.
- Innovative and creative: Utilities has developed reports that alert staff to meters which are potentially reading low or malfunctioning. This allows for more effective maintenance program through targeted follow-ups.
- Ensure services are “right sized”: Meter change out and calibration intervals have been developed according to industry best practices. Industry best practices encourage a proactive approach to maintain and preserve water meter accuracy.
- Provide the best value in meeting community needs by monitoring high-volume accounts served by multiple meters to check for gradual meter slow-downs, indicating that the meter may be failing. If the meter is not recording consumption properly, the City loses revenue. If our monitoring shows a spike or other abnormality in usage, customers are quickly notified so that they can perform troubleshooting on their system, enabling them to save money and conserve resources.

Through franchise agreements Bellevue Utilities provides water and sewer service to Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove area).

Cost Savings:

This proposal promotes cost savings to the customer through early leak detection and accurate metering of water usage.

Consequence of not funding the proposal at all

- Legal: Retroactive billing window is three-years; WAC 246-290-496 states meters must be selected, installed, operated, calibrated, and maintained following generally accepted industry standards and information from the manufacturer.
- Customer Impact: If a customer’s meter is malfunctioning, they would not be aware of the true amount of water they’re using. After replacement, the customer may be in for a “nasty surprise” when they discover the amount of their utilities bill compared to previous bills from the underreporting meter.
- Other: Failing to discover malfunctioning meters in a timely manner results in lost water and wastewater revenues. Since we are only able to recapture underpaid utilities for a retroactive three-year period, any billing shortages previous to that point represent money lost.

Consequence of funding at a lower level: Similar to those described above.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0235f	Utilities: Percent of commercial meters that meet accuracy standards at the time of the test	56.25%	39.44%	36.23%	32%	85%	85%	85%
140.0238f	Utilities: Percent of commercial meters tested annually	22.78%	25.18%	24.3%	24%	20%	20%	20%
140.0241	Utilities: Number of domestic meter change outs	656	1,604	1,469	2,019	2,000	2,000	2,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

\$65,000 increase in both years in supplies to reflect the higher costs of no lead meters and parts.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	2.25	2.25	Expenditures	329,509	324,388
LTE	0.00	0.00	Personnel	203,110	210,817
Total Count	2.25	2.25	Supporting Revenue	0	0
			Rev-Exp Balance	-532,619	-535,205

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Service Installation and Upgrade Program		
Proposal Number:	140.17NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.17NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Kipp Fockler, x2923

Section 2: Executive Summary

This proposal provides resources for the installation of drinking water service for new homes and businesses to obtain occupancy permits without costly delays to the property owner or contractor. Utilities perform water main shutdowns, water main condition assessments, and pipe work to install new water services. Asphalt cuts and excavations needed for installation are completed by private contractors under the right-of-way (ROW) use permit process. This hybrid Utility/contractor approach to water service installations provides timely installation of new services for developers, condition assessment data critical for asset management, minimizes customer service impacts of water shutdowns and assures consistent quality control and sanitation while supporting economic development.

Section 3: Responsiveness to Request For Results

Water service connections support community growth and economic development if they are performed expeditiously and minimize construction delays. Commercial and residential development requires water service prior to occupancy, so delays can be very costly for customers and contractors.

Note: These are billable services with offsetting revenues that support the cost of installing water service connections.

- **New Water Service Installations:**

Water services are installed when a new building or home is being built or remodeled. The contractor is responsible for excavating the utilities and providing traffic control. City crews notify customers of any temporary water outages, shut off the water if necessary, and install the new water service piping and water meter. The meter service is turned on after the contractor satisfies all permit requirements. In an effort to minimize construction delays Utilities goal is to complete 95% of all water service installs within 4 weeks of the customer's request to do so.

- **Installation of Water Meters in New Development Projects:**

When a water distribution system extension is completed in a residential plat for a new development project with multiple homes, Utilities installs the new water meters for each home. Crews clean the service lines, install the new water meters, and document the meters serial numbers, locations, and other pertinent information needed to activate services and billing.

Staff included in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, earthquakes, as well as other unforeseen disasters.

Mandates and Contractual Agreements:

- WAC 246.290.49, Metering Requirements. Meters must be selected, installed, operated, calibrated, and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

maintained following generally accepted industry standards and information from the manufacturer.

- WAC 480.110.365, Service Responsibilities. Defines roles and responsibilities of both the customer and the water company regarding equipment, changes to equipment and service interruptions. For scheduled service interruptions, the water company must notify its customers in advance.

Efficiencies/Innovations:

Utilities adopted recommendations from a 2008 process improvement analysis to change the role of Utilities staff in water service installations. Previously, staff performed all aspects of an installation from digging trenches, to making connections, to restoring pavement. This division of labor reduced the Utilities staffing previously required for excavation, pavement repair, and traffic control.

Short- and long-term benefits of this proposal:

Short-term benefits: Customers and developers get needed water service connections, a prerequisite for occupancy permits. The City's collaborative approach reduces delays before service connections can be made. Inspections of existing water system components when new connections are made can uncover system components in an "imminent failure state," allowing for preventive maintenance, repair, or replacement.

Long-term benefits: Water service connections support community growth and development and boost the local economy. The integrity and safety of the drinking water system is maintained.

Describe why the level of service being proposed is the appropriate level/scalability:

This proposal provides for an acceptable level of service to the development community. The new installation procedures allow Utilities to meet customer needs within a satisfactory time frame without additional staff resources. These are demand-driven service levels driven by development activity and the associated water service and meter requests.

Factors in the Healthy and Sustainable Environment outcome:

- Factor 2: Clean Reliable Water/Clean Drinking Water; Reliable Water Supply. Homes and businesses need to connect to the City's water supply.
- Factor 3: Clean Green City/ Conservation of Natural Resources. Utility crews provide high quality work to ensure that water services will not leak or fail, thereby reducing water system losses.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

- Ensure services are "right sized" while being innovative and creative. The combination of Utilities O&M working directly with the developers strikes a balance between available resources to perform the work with a high level of quality control to protect and preserve drinking water quality and infrastructure integrity.
- Ensure sound management of resources and business practices. Installation of new water service connections makes possible the delivery of reliable drinking water to Bellevue residents and businesses. Utilities staff work practices also consider efficiency and environmental sustainability. If crewmembers determine that any infrastructure needs to be replaced or repaired when they make service connections, repairs can be made to prevent failure and enhance service reliability. For example, an existing "saddle" connection between the water pipe from a home and the City's water main could be corroded and need to be replaced. Proactive inspections and repairs in the course of new service connections can prevent future catastrophic water main breaks that cause property and environmental damage, service interruptions, and possible claims against the City.

Other factors addressed in this proposal:

- Economic Growth and Competitiveness, Factor 3: Land, Infrastructure and Planning. Developers and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

contractors need a reliable, satisfactory, and efficient means of connecting to local utilities. The water service install procedures provide contractors with more control over the time it takes for water service connections. This creates a friendlier climate for developers and encourages them to continue investing in Bellevue.

- Safe Community, Factor 1: Prevention. The role Utilities plays in the process provides an opportunity to perform condition assessment on our infrastructure as well maintain a high level of quality control to protect the drinking water and its components.

Citywide purchasing strategies addressed:

- Leverage Collaboration (with development community), Efficiency Gains/Cost Savings, and Best Practices.

Activities under this proposal represent a collaborative effort with the development community, which benefits both the City and customers. The City reduces labor resource needs because customers and developers choose their own contractors to perform excavations and pavement restoration as part of water service installation. The customers benefit from the accelerated service connection times that this division of work allows.

Through franchise agreements Bellevue Utilities provides water service to Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove area).

Consequence of not funding the proposal at all

- Customer Impact: Existing customers would have inconsistent levels of service on water shutdowns both in execution, duration, and water quality impacts of the shutdown. Developers would have to address new service installations and upgrades process by other means in order for new home and commercial construction to continue. The need to perform the work would not go away.
- Other: If not funded, the Utilities Department would need to develop a process for a developer to install the entire new water service connection, including the piping and water shutdowns.

Consequence of funding at a lower level: Similar to those described above.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0242f	Utilities: Percent of water service installations completed within four weeks of request	100%	95.46%	97.56%	100%	100%	100%	100%
140.0245	Utilities: Number of water service installations	24	22	41	71	40	50	50

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

\$80,000 increase in supplies to accurately reflect the costs of new parts.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	1.00	1.00
LTE	0.00	0.00
Total Count	1.00	1.00

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	143,857	142,553
Personnel	84,586	87,845
Supporting Revenue	0	0
Rev-Exp Balance	-228,443	-230,398

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Sewer Mains Laterals and Manhole Repair Program		
Proposal Number:	140.18NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.18NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Dave Dickson, x4889

Section 2: Executive Summary

The City of Bellevue's Sewer section is responsible for operation, maintenance, and repair of 680 miles of buried or submerged pipe and 14,132 manholes and cleanouts (maintenance access structures) within its service territory. This proposal provides repair services for the sewer collection system. These repairs correct deficiencies predominately due to aging infrastructure and allow the City to get the most use out of each pipe and manhole over the life of the asset for the least long-term cost. Raw sewage contains viruses, bacteria, chemicals and other pathogens that are an extreme threat to public health and the environment when not managed and contained within the sewer collection system. Broken or defective sewer mains and connections result in blockages and overflows of sewage that can flood and contaminate customer's homes, businesses or the environment; create public health issues and result in costly liability claims to the City.

Section 3: Responsiveness to Request For Results

The City of Bellevue's Sewer section is responsible for operation, maintenance, repair of 680 miles of buried or submerged pipe and 14,132 manholes and cleanouts (maintenance access structures) within its service territory. The sewer collection system is aging and requires scheduled and emergency repairs to ensure reliability and service to Bellevue's citizens and businesses. Defects to the system are discovered through Closed Circuit TV (CCTV) video inspections, maintenance activities and emergency service calls from customers. Repairs include spot repairs to sewer mainlines, side sewer stubs within the right-of-way and manhole repairs. The 130 miles of side sewer stubs within the right-of-way pose special challenges as they have difficult access for condition assessment and no access for routine maintenance. Many of these repairs involve deep excavations (10 feet +) to access the pipe for repair.

In response to the growing number of needed repairs in 2009 Wastewater O&M launched a full-time repair crew dedicated to wastewater system repairs with a performance measure target to complete 100 in-house repairs annually. In concert with Engineering's CIP repair work, the backlog of repairs has been reduced from over 900 in 2011-2012 to less than 700 currently. The long-term goal is to eliminate the backlog and keep pace with newly identified repair needs on an ongoing basis. The condition assessment program continues to find an average of 15 new defects a month.

Staff included in this proposal also has key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, earthquakes, as well as other unforeseen disasters.

Efficiencies/Innovations:

Experience has shown that performing repairs in-house saves \$10,000 per repair on average compared to outsourcing. We continue to look to reduce the cost of repairs. One example is the successful testing and implementation of a product to repair pipes internally without needing to cut pavement and excavate. While this approach doesn't work for all repairs, when this method is used, repairs that average \$5,000 using traditional methods are completed at an average cost of \$1,000 per repair. And because repairs can be done without traditional disruptive methods, traffic impact is lessened

Short- and long-term benefits of this proposal:

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Short-term: The continued effective functioning of the City's sewer system, providing citizens and businesses with reliable sewer service. Preventing disruption of the City's traffic flow related to serious, unplanned system repairs that require street blockage and closures.

Long-term: A proactive approach to repairs extends the useful service life of the sewer system. Repairs done in-house can be expedited which reduces time and cost per repair. In addition, these activities contribute to Utilities' stated objective of managing the City's wastewater infrastructure to provide the service levels expected by the community and required by regulators, while optimizing the cost of operating, maintaining, renewing and replacing the infrastructure.

Describe why the level of service being proposed is the appropriate level/scalability:

The service levels proposed balances the need to ensure the safe and reliable removal of sewage from homes and businesses. This minimizes the impacts of sewer blockages and overflows against the costs to provide wastewater system repairs and relative risks associated with service failures from identified defects and claims paid. Due to the high consequences of failure when repair needs are not addressed, these service levels support the goals for reliability and performance; scaling back current service levels will result in increased risk of sewer blockage/overflows; and increased risk of customer claims and impacts to the natural environment. An average of fifteen deficiencies is identified each month which has led to a significant backlog of repairs needing repair and/or monitoring. These activities prolong the infrastructure life and are vital in providing sewer services to the homes and businesses of Bellevue and the neighboring franchise areas. Funding at this level does not address all of the known defects, but has slowed the upward trend of the backlogged repairs.

Factors in the Healthy and Sustainable Environment Outcome:

- Factor 2: Water/ Wastewater Management provides the infrastructure and services to reliably remove wastewater from homes, businesses, and neighborhoods.
- Factor3: Natural Environment/Lakes, streams, Wetlands and improved wildlife habitat through containment of sewage and the reduction of wastewater overflows to the environment.

Purchasing Strategies in Healthy and Sustainable Environment Outcome:

- Effective Wastewater management by ensuring removal of sewage from homes and businesses using ongoing sewer main/lateral/manhole repair activities.
- Ensure that sewer system is adequately maintained to minimize negative impacts from sewage backups and overflows.

Provide services for keeping our natural environment clean and free of waste, debris and toxic materials.

Other Outcomes:

- Economic Growth and Competitiveness, Factor 3: Infrastructure. A properly functioning sewer system adds value to land by permitting higher productive uses. Fast, effective repairs reduce economic impacts to businesses/residences.
- Improved Mobility, Factor 2: Traffic Flow. Planned repairs help to avoid crisis situations where sewer line emergencies can disrupt traffic impacting mobility. Closing roads or diverting traffic during an unplanned sewage repair or emergency can contribute to more traffic congestion.
- Responsive Government, Factor 4: Stewards of public trust. Proactive repairs lower the need for emergency repairs which are generally 50% more expensive if outsourced through contracting.

Citywide Purchasing Strategies:

- Provide the best value in meeting the community needs by minimizing life cycle costs through effective asset management and minimizing claims due to sewage backups

Provide for gains in efficiency and/or cost savings and ensure that services are "right sized" by optimizing.

- Ensure sound management of resources and business practices through effective asset management.
- Leverage collaboration or partnership with other departments and/or external organizations by minimizing pipe failures after Transportation overlays streets.

Consequence of not funding the proposal at all:

Legal: Increased impacts to the environment and public health will increase the potential for fines levied by Federal/State agencies due to sewage overflow to lakes and stream.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Customer Impact:

- Citizens would be impacted due to more frequent and costly failures/overflows; increased service interruptions and economic impacts to businesses without sewer service (restaurants). Mobility in Bellevue would be reduced due to disruptions associated with unplanned repairs.
- The natural environment and public health will be negatively impacted with overflows and exposure to sewage on the ground surfaces and in the waters of Bellevue.
- Reduction of system reliability and increased claims due to failure; costs to perform system maintenance will increase when needed repairs are deferred.
- Investment/Costs already incurred: Council approved three additional FTE's for sewer repairs in the 09-10 budget.

Consequence of funding at a lower level:

Reduction of the program budget would mean an even larger backlog of critical sewer defects awaiting repair, increased emergency repair costs, environmental pollution, and damage claims. Emergency repair work is generally 50% more expensive than proactive repair work.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0187	Utilities: Number of identified wastewater pipe defects requiring repair within 5 years	N/A	N/A	N/A	338	250	200	200
140.0188	Utilities: Number of wastewater in-house pipe repairs completed annually	N/A	126	110	93	100	100	100
140.0338	Utilities: Number of new wastewater pipe defects identified for repair or replacement	181	146	23	107	150	150	150

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	7.25	7.25	Expenditures	305,973	305,522
LTE	0.00	0.00	Personnel	706,800	733,051
Total Count	7.25	7.25	Supporting Revenue	0	0
			Rev-Exp Balance	-1,012,773	-1,038,573

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Sewer Condition Assessment Program		
Proposal Number:	140.19NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.19NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Dave Dickson, x4889

Section 2: Executive Summary

The Sewer Condition Assessment Program uses Closed Circuit TV (CCTV) equipment to provide digital images of the inside of sewer pipes and stubs in the right-of-way (ROW) to identify and evaluate pipe defects that need repair and document less severe defects that need regular maintenance. Sewer pipe defects can cause catastrophic failures resulting in blockages, backups and sewer overflows which impact customers, public health, and the environment. In addition, identifying and repairing sewer defects prior to road overlay activities minimizes pavement impacts and lowers restoration costs.

Section 3: Responsiveness to Request For Results

This proposal provides sewer condition assessment services for the public sewer system. The condition assessment program provides data and information used to identify and prioritize sewer system maintenance and repair activities. Making necessary repairs to underground pipes prior to street overlay or pipe failure is significantly less expensive than repairing defects after a street has been overlaid or system failure. Assessing the condition of pipes supports asset management and identifies pipes in need of repair and/or preventive maintenance prior to complete failure. Condition assessment is the digital recording, evaluation, and reporting of CCTV video of sewer mains and service stubs. CCTV data is used by Utilities Engineering and Operations and Maintenance to identify and prioritize repairs and determine which pipe defects can be deferred for future monitoring. This data also provides needed information to proactively manage the sewer system including the development of long-term renewal and rehabilitation CIP programs. Condition assessment is vital to effective asset and risk management, provides a high level of customer service via emergency response and claims investigation, and supports the optimization of preventive maintenance activities and schedules. Staff also has key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled, trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, and earthquakes, as well as other unforeseen disasters.

Asset Management

Sewer condition assessment information is evaluated using an industry standard scoring system with the most severe deficiencies (failures) documented and scheduled for repair and/or maintenance. Condition Assessment crews work to determine the severity of deficiencies and to prioritize and schedule necessary repairs. The sewer system experiences more failures as it ages. Crews have identified over 900 sewer defects in the last several years. Coordinating repairs with Engineering and the in-house repair crew that number has been reduced to less than 700. Over time the number of new defects identified (both needing repair and for monitoring) has averaged 15 a month.

Risk Management and Claims Reduction

This proposal also provides emergency response and claims investigation. CCTV allows staff to identify causes of pipe failure in order to minimize reoccurring failures, and determine who is responsible for failure.

Efficiencies/Innovations:

Condition Assessment allows for quality repairs and maintenance decisions which help reduce environmental impacts and promote public health. Additionally, the services within this proposal support claims avoidance by proactively identifying deficiencies before sewage backups impact homes or businesses. The use of these

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

resources to investigate claims ensures only legitimate claims against the city are paid.

Short- and long-term benefits of this proposal:

- Short-term: This proposal provides emergency response, claims investigation, and pipe condition assessments. These services help to identify problems needing immediate repairs and avoid imminent failures and associated claims; identify system issues/responsibility (public or private), and identify potential failures..
- Long-term: Condition assessment establishes a long range view of our sewer system. This information is vital to the Asset Management team as they develop long term renewal and replacement capital programs for the wastewater system. It provides quality control on the wastewater preventive maintenance activities and helps to provide information needed for continual improvements to the scheduling and cleaning of the system which improves efficiency and effectiveness.

Describe why the level of service being proposed is the appropriate level/Scalability:

A study by Black & Veatch in 2004 recommended that the City inspect 10% of the sewer collection pipes annually. The proposed service level addresses the need for reliable and effective wastewater removal to minimize blockages, overflows and claims while minimizing life cycle costs. Totally eliminating failures and blockages is cost prohibitive. However, given the high consequence of sewer system failures, condition assessment service levels work to balance best maintenance practices and support renewal and rehabilitation of the infrastructure for these long lived assets.

Condition assessment provides the necessary information to best manage the repair, replacement, and preventive maintenance of sewer mains and lateral service lines while minimizing life cycle costs. This service provides Utility Engineering with current system conditions for review, design, and repair. Condition assessment for emergency response is necessary to mitigate impacts to the natural environment and property.

Factors in the Healthy and Sustainable Environment Outcome:

- Factor 2: Water/ Wastewater Management provide the infrastructure and services to reliably remove wastewater from homes, businesses, and neighborhoods.
- Factor3: Natural Environment/Lakes, Streams, and Wetlands & improved wildlife habitat through containment of sewage and the reduction wastewater overflows to the environment.

Healthy and Sustainable Environment purchasing strategies:

- Effective Wastewater management by ensuring removal of sewage from homes and businesses using proactive condition assessment services.
- Ensure that sewer system is adequately maintained to minimize negative impacts from sewage backups and overflows. Condition assessment of the sewer system proactively detects needed repairs before problems cause blockages, backups, and overflows.

- Provide services for keeping our natural environment clean and free of waste, debris and toxic materials

Other Outcomes

- Economic Growth and Competitiveness, Factor 3: Infrastructure. A properly functioning sewer system adds value to land by permitting higher productive uses.
- Improved Mobility, Factor 2: Traffic Flow. By performing proactive condition assessment of sewer pipes prior to pavement overlay significantly reduces the chance of a sewer system failure that would cause emergency road closures and impact traffic flow, increasing traffic congestion even further.
- Responsive Government, Factor 4: Stewards of the public trust by well-designed and maintain assets.

Citywide Purchasing Strategies:

- Provide the best value in meeting the community needs by minimizing life cycle costs through effective asset management and minimizing claims due to sewage backups
- Provide for gains in efficiency and/or cost savings and ensure that services are “right sized” by optimizing proactive preventive maintenance schedules and prioritizing repairs
- Ensure sound management of resources and business practices through effective asset management.
- Leverage collaboration or partnership with other departments and/or external organizations by minimizing pipe failures after Transportation overlays streets.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Consequence of not funding the proposal at all

- Legal: Increased impacts to the environment and public health will increase the potential for fines levied by Federal/State agencies due to sewage overflows to lakes and streams.
- Customer Impact:
 - Citizens would be impacted by frequent and costly failures, overflows, and service interruptions; economic impacts to businesses without sewer service (restaurants). Mobility in Bellevue would be reduced due to disruptions associated with emergency repairs within the street right of way.
 - The natural environment and public health will be negatively impacted with overflows and exposure to raw sewage on the ground surfaces and in the waters of Bellevue.
 - Reduction of system reliability and increased claims due to failure; costs to perform system maintenance will increase if needed repairs are not identified;
- Investment/Costs already incurred: Two condition assessment vehicles estimated at \$300,000 each
- Other: Reduced level of system reliability; increased claims; reduced confidence, understanding, and tracking of asset conditions. City and neighboring CIP projects would be negatively impacted due to the lack of information needed for planning and repairs ahead of CIP projects; lack of information to plan renewal and rehabilitation CIP.

Consequence of funding at a lower level: Similar to those described above.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0195	Utilities: Linear feet of wastewater condition assessment performed	N/A	357,251	338,896	292,579	265,000	265,000	330,000
140.0336f	Utilities: Percent of wastewater system video inspected	N/A	10.35%	9.8%	8%	10%	10%	10%
140.0338	Utilities: Number of new wastewater pipe defects identified for repair or replacement	181	146	23	107	150	150	150

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	5.45	5.45
LTE	0.00	0.00
Total Count	5.45	5.45

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	156,952	156,236
Personnel	552,107	572,506
Supporting Revenue	0	0
Rev-Exp Balance	-709,059	-728,742

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Sewer Mainline Preventive Maintenance Program		
Proposal Number:	140.20NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.20NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Dave Dickson, x4889

Section 2: Executive Summary

This proposal provides preventive maintenance cleaning services on the sewer collection system to keep the lines clear. Preventive maintenance services lower service interruptions due to blockages, the associated claims due to backups, and minimize overflows which impact the environment and public health. This preventive maintenance program allows us to maximize the life of the sewer system for the least long-term cost.

Section 3: Responsiveness to Request For Results

This proposal provides necessary preventive maintenance services for dependable sewage collection service for 38,000 residential and commercial customer accounts. These services include root sawing to remove tree root intrusion, pipe cleaning using high pressure jetting, and other mechanical means, and flushing to remove grease, solids and other debris that collect in sewer pipes and cause blockages and overflows. These sediments build up due to a variety of factors which include: cracked joints, broken service taps, flat pipes/low flow, and kitchen grease from residences and businesses. Some pipes have higher maintenance needs than others. Condition assessment inspections and past experience are used to establish appropriate maintenance levels for high maintenance pipes. Other services under this proposal include emergency response to clear blockages and overflows, manhole inspection, and treatment of fats, oil, and grease. These services minimize the potential for sewage blockages and overflow that impact the customer with loss of service and backups into homes and businesses. Overflows have negative impacts on the environment including our lakes and streams. Lake Washington and Lake Sammamish Submerged Sewers (Lake lines): To reduce failures and minimize impacts to public health, property and the environment, staff also provides maintenance services on the submerged sewer "lake lines" in Lake Washington and Lake Sammamish. Automatic flush stations are used to help remove sediment and convey flow in the lake lines on a routine preventive basis. If blockages and overflows occur, cleaning the lake lines manually is an extremely labor intensive process and represents an unplanned workload pulling resources from other programs. The 14.6 miles of Lake Washington submerged sewer lake line was thoroughly cleaned in 2007 in response to a number of blockages and related overflows. The Lake Sammamish submerged sewer lake line was thoroughly cleaned in 1988 but has not experienced the blockages that have occurred in the Lake Washington line. As infrastructure ages, maintenance ensures sewer pipe works while extending the useful service life of the asset. This buys time to plan for replacement. Staff are assessing alternatives to how best rehabilitate or replace the lake line. In the meantime, staff provides uninterrupted service to lakefront properties and protects the environment. Staff also has key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, and earthquakes, as well as other unforeseen disasters.

Efficiencies/Innovations:

In concert with the Wastewater Condition Assessment program, staff has targeted specific high maintenance pipelines to evaluate and adjust the frequency of maintenance (cleaning) to ensure adequate but not excessive maintenance levels. These efforts have reduced the amount of reoccurring workload on "high maintenance pipes" and allowed the start of a system-wide cleaning program that is projected to clean the entire infrastructure on a 10-year cycle

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Short- and long-term benefits of this proposal:

Short-term benefits: Effective and efficient function of the City's sewer system, provides citizens and businesses with reliable sewer service necessary for domestic and commercial business uses and prevents disruption to of the City's traffic flow related to unplanned system blockages and overflows that require street closures.

Long-term benefits: A proactive approach to maintenance extends the useful service life of the collection system. In addition, these activities contribute to Utilities' stated objective of managing the City's sewer infrastructure to provide the service levels expected by the community and required by regulators, while minimizing the cost of operating, maintaining, renewing and replacing the infrastructure.

Describe why the level of service being proposed is the appropriate level/Scalable:

The service levels balance the need to ensure the safe and reliable removal of sewage from homes and businesses, minimize economic impacts of blockages and service interruptions to the customer, and minimize the impacts of overflows on the environment against the costs to provide sewer system preventive maintenance and relative risks associated with service failures. As indicated by the performance measures, an adequate level of preventive maintenance services is required to effectively operate the sewerage system. Due to the high consequences of failure when preventive maintenance services are not provided, these service levels support the goals for reliability and performance.

The activities aid in prolonging the infrastructure and are vital in providing sewer services to the homes and businesses of Bellevue and the neighboring franchise areas. By keeping sewage flowing through the collection system we minimize the potential for overflows that would harm the natural environment and public health and can result in economic hardship to residents and businesses and major claims to the City. Proactive maintenance activities contribute to the claims reduction program by ensuring system flows prior to failure and overflow.

Preventive maintenance services ensure flow of sewage and reduce environmental impacts. By performing preventive maintenance we reduce the potential for backups, overflows, and related claims. On average there are 6.8 sewer backup claims per year which average \$44,648.00 per year in claims paid. Targeted preventive maintenance services keep known problem areas conveying flow and returns service to customers in a reasonable amount of time in the event a blockage occurs. Furthermore, it provides a proactive approach to extend the life of assets prior to complete failure.

Factors in the Healthy and Sustainable Environment Outcomes:

- Factor 2: Water/Wastewater Management provides the infrastructure and services to reliably remove wastewater from homes, businesses, and neighborhoods.
- Factor3: Natural Environment/Lakes, Streams, Wetlands, and improved wildlife habitat through the containment of sewage and the reduction of wastewater overflows to the environment

Healthy and sustainable Environment purchasing strategies:

- Effective Wastewater Management by ensuring the removal of sewage from homes and businesses using proactive preventive maintenance practices
- Ensure that sewer system is adequately maintained to minimize negative impacts from sewage back-ups and overflows. Preventive Maintenance of the sewer system proactively maintains the pipes before problems cause blockages, back-ups, and overflows
- Provide services for keeping our natural environment clean and free of waste, debris and toxic materials. A properly functioning sewer system collects and conveys sewage

Other Outcomes:

- Safe Community, Factor 1: Prevention. Preventive maintenance activities reduce failures resulting in sewer backups/overflows which have negative effects on the environment.
- Economic Growth and Competitiveness, Factor 3: Infrastructure. A reliable sewer system is an essential part of the City's economic competitiveness, and advances the standard of living for the community. A properly functioning sewer system adds value to land by permitting higher productive uses.
- Improved Mobility, Factor 2: Traffic Flow. Preventive maintenance helps to avoid crisis situations where sewer line emergencies can disrupt traffic impacting mobility. Closing roads or diverting traffic during an

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

unplanned sewage repair or emergency can contribute to more traffic congestion.

- Responsive Government, Factor 4: Stewards of Public Trust. Preventive maintenance activities reduce the need for reactive maintenance and cleanup as the result of blockages and overflows.

Citywide Purchasing Strategies:

- Provide the best value in meeting the community needs by minimizing life cycle cost with effective maintenance services and minimizing claims due to sewage backups; extends the useful life of the collection system.
- Provide for gains in efficiency and/or cost savings and ensure that services are “right sized” by optimizing preventive maintenance schedules in order to maintain the collection system prior to blockages, backups and overflows.
- Ensure sound management of resources and business through effective asset management
- Leverage collaboration or partnership with other departments and/or external organization by minimizing sewer overflows onto city streets causing traffic congestion and detours

External: Via franchise agreements Bellevue Utilities provides sewer service to the following communities: Clyde Hill, Medina, Beaux Arts, Yarrow Point, Hunts Point, and Issaquah (South Cove).

Consequence of not funding the proposal at all:

- Legal Lack of maintenance of the Bellevue wastewater system would violate NPDES Phase II permit requirements and could result in fines, imprisonment, and/or 3rd party lawsuits (NPDES Permit enforcement options).

•Customer Impact:

Citizens would experience more obvious, frequent, and costly failures and overflows. Mobility in Bellevue would be reduced due to disruptions associated with blockages, backups, and overflows.

The natural environment and public health will be negatively impacted with overflows and exposure to sewage on the ground surfaces and in the waters of Bellevue. The reduction of system reliability will increase claims due to failure. Costs to perform system maintenance will increase when needed repairs are deferred.

Consequence of funding at a lower level: Similar to those described above.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0196f	Utilities: Number of wastewater overflows per 1,000 customer accounts caused by system failures (target of 0.75 represents 28 overflows annually)	N/A	0.35	0.38	0.05	0.75	0.75	0.75
140.0199f	Utilities: Percent of wastewater pipe cleaned	N/A	21.27%	19.96%	20%	20%	20%	20%
140.0211	Utilities: Number of wastewater claims paid due to system failure	4	3	7	8	10	10	10
140.0315	Utilities: Number of wastewater claims paid greater than \$20,000 due to system failure	0	0	1	2	1	1	1
140.0379	Utilities: Total cost of wastewater claims paid	\$2,165.00	\$35,801.00	\$45,704.00	\$97,945	\$60,000	\$60,000	\$60,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	8.10	8.10	Expenditures	231,110	250,502
LTE	0.00	0.00	Personnel	764,112	792,688
Total Count	8.10	8.10	Supporting Revenue	0	0
			Rev-Exp Balance	-995,222	-1,043,190

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Sewer Pump Station Maintenance Operations and Repair Prog.		
Proposal Number:	140.21NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.21NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Dave Dickson, x4889

Section 2: Executive Summary

This proposal provides sewer pump station maintenance and repairs to help minimize failures that cause sewer backups and overflows to the environment that can result in beach closures and surface water quality concerns. In addition, sewer backups can require a homeowner to move out or a business to close until cleanup is completed. Bellevue's unique topography with elevations ranging from sea level to 1,440 feet requires a diverse and complicated system of pump stations to provide continual service 24 hours a day/365 days a year. This proposal provides staff, vehicles, tools, equipment, and supplies for maintenance, operations, and repair services for sewer pump stations in the sewer collection system. These services ensure the 46 sewer pump stations, located along Lake Washington and Lake Sammamish, are adequately maintained and operating properly to minimize sewer blockages and overflows which impact customers, public health, and the environment.

Section 3: Responsiveness to Request For Results

This proposal provides services to maintain operate and repair the 46 sewer pump stations in the City's sewer collection system. Services in this program include repair/replacement of pumps, motors, pump ventilation equipment, valves, piping, wet well cleaning, grounds and building maintenance. Also included are repairs to address electrical systems failures, including diagnosing problems and replacing electrical parts. These services are critical to ensure that pump stations operate reliably to support uninterrupted flow for an average 11 million gallons per day of sewage to King County. Pump stations operate 24 hours a day/365 days a year to prevent backups to homes and avoid overflows. Electricity to power the pump stations makes up \$85,000 of this proposal and is based on demand.

The criticality of these facilities requires redundancy in the form of multiple pumps at the pump stations and backup power supplies. Staff ensures portable and onsite backup power generators are maintained and available for effective response during localized and city-wide power outages.

Staff included in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, earthquakes, as well as other unforeseen disasters.

Efficiencies/Innovations:

Utilities use Telemetry/Supervisory Control and Data Acquisition (SCADA) to remotely operate sewer pump stations and troubleshoot if any problems arise. Remote operations result in savings by reducing the need for service personnel to do on-site visits for data collection and/or minor adjustments.

Short- and long-term benefits of this proposal:

Short-term benefits: Ensures that pump stations are operational and that defective equipment and components are repaired or replaced prior to failure; Reduce overflows into the environment due to station failure; Many of the stations are located on or in close proximity to lakefront properties and this maintenance maintains good customer relations in these locations.

Long-term benefits: Contributes to the longevity of the stations and reduces power consumption by keeping the station running efficiently; station reliability keeps the cost associated with after hour callouts to a

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

minimum; documents station performance which is used in planning station rehabilitation; and keeps station easement clear for emergency access to sewer infrastructure.

Describe why the level of service being proposed is the appropriate level/Scalable:

Sewer pump stations are located at low spots in the sewer collection system next to Lake Washington and Lake Sammamish. While rare, pump station overflows discharging directly to these lakes have significant impacts to public health, the environment, customers, and result in claims. The performance measures for this proposal have a target of zero for both weather and non-weather related pump station overflows. This zero tolerance for pump station overflows is based on the high consequences to the environment and customers who are negatively impacted through backups into homes, public parks, and shoreline properties which are negatively impacted when sewage overflows into lakes and/or streams.

Service levels proposed address the need for reliable and effective sewer removal to minimize blockages, overflows, and claims while minimizing life cycle costs. These goals are balanced against the cost of providing services and meeting regulatory requirements. The price to provide a 100% guarantee of no failures and blockages would be exorbitant, and this cost would be passed on to our ratepayers. The proposed level of service represents an effective balance between preventing sewer system failures and keeping rates low for our customers.

Factors in the Healthy and Sustainable Environment Outcome:

- Factor 2: Water/Wastewater Management. Reliable sewage system operation provides the infrastructure and services to reliably remove sewage from homes, businesses, and neighborhoods.
- Factor3: Natural Environment/Lakes, Stream, Wetlands, and improved wildlife habitat through containment of sewage and the reduction of wastewater overflows to the environment.

Healthy and Sustainable Environment purchasing strategies:

- Effective Wastewater Management by ensuring removal of sewage from homes and businesses using proactive preventive maintenance practices
- Ensure that sewer system is adequately maintained to minimize negative impacts from sewage back-ups and overflows by maintaining wastewater conveyance pipes and pumps
- Provide services for keeping our Natural environment clean and free of waste, debris, and toxic materials

Other Outcomes:

- Safe community, Factor 2: Prevention. Containment of sewage and the reduction of overflows protect the environment from pollutants, protecting our lakes, streams, and wetlands.
- Economic Growth and Competiveness, Factor 3: Infrastructure. A properly functioning sewer system adds value to land by permitting higher productive uses.
- Improved Mobility, Factor 2: Traffic Flow. Preventive maintenance helps to avoid crisis situations where sewer line emergencies can disrupt traffic impacting mobility. Closing roads or diverting traffic during an unplanned sewage repair or emergency can contribute to more traffic congestion.
- Responsive Government, Factor 4: Stewards of Public Trust. Proactive preventive maintenance identifies defects prior to failure and lowers the need for emergency repairs.

Citywide Purchasing Strategies:

- Provide the best value in meeting community needs by minimizing life cycle cost through effective maintenance services and minimizing claims and or fine due to sewage overflows; extends the useful life of the collection system.
- Provide for gains in efficiency and/or cost savings and ensure that services are “right sized” by optimizing preventive maintenance schedules in order to maintain the collection system prior to blockages, backups and overflows.
- Ensure sound management of resources and business through effective asset management
- Leverage collaboration or partnership with other departments and/or external organization by minimizing sewer overflows onto city streets causing traffic congestion and detours.

External: Via franchise agreements Bellevue Utilities provides sewer service to the following communities: King County, Clyde Hill, Medina, Beaux Arts, Yarrow Point, Hunts Point, and Issaquah (South Cove).

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Consequence of not funding the proposal at all:

- Legal: Increased violations/fines levied from environmental regulatory agencies. Most overflows directly outfall to Lake Washington, Lake Sammamish, or creeks/streams.
- Customer Impact: Reduced level of system reliability – more pump station failures, backups, overflows; increased blockages, backups and overflows and related beach closures; reduced customer confidence in the Utility to provide service; reduced level of service in during power outages and emergencies/claims; increased claims; increased public health risks; business disruption and related economic impact.

Consequence of funding at a lower level: Similar to those described above.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0202f	Utilities: Non-weather related pump station overflows per 1,000 wastewater customer accounts (value of 0.027 represent 1 overflow)	N/A	0	0.05	0	0	0	0
140.0205f	Utilities: Weather related wastewater pump station overflows per 1,000 customer accounts (value of 0.027 represents 1 overflow)	N/A	0	0	0	0	0	0
140.0208f	Utilities: Percent of wastewater pump station inspections completed as planned	N/A	101%	102%	100%	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	5.55	5.55	Expenditures	332,318	309,424
LTE	0.00	0.00	Personnel	558,695	579,348
Total Count	5.55	5.55	Supporting Revenue	0	0
			Rev-Exp Balance	-891,013	-888,772

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Storm and Surface Water Repair and Installation Program		
Proposal Number:	140.22NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.22NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Don McQuilliams, x7865

Section 2: Executive Summary

The Storm and Surface Water System within the City of Bellevue is comprised of a network of public and privately owned pipes, open channels, catch basins, manholes, streams and detention facilities both above and below ground. This proposal provides repair and installation services for publicly owned drainage system components to ensure that the municipal storm drainage system functions as designed. This aids to protect life, property, and the environment during major storm and flooding events, and to reduce pollution entering streams and lakes. Much of the repair work surrounding the storm & surface water system is mandated under the National Pollution Discharge and Elimination System permit (NPDES).

Section 3: Responsiveness to Request For Results

The City of Bellevue Storm & Surface Water system is comprised of:

Over 400 miles of underground pipe More than 20,000 catch basins and manholes Over 350 water quality and flow control facilities along with 11 large regional facilities 86 miles of open ditches Over 80 miles of stream in public/private ownership And 860 acres of wetlands and riparian areas

On average, the Surface Water System Repair and Installation Program repairs over 150 structures (catch basins, manholes, vaults, tanks, and WQ facilities) and approximately 500 feet of pipe annually, and works within sections of City owned stream segments to stabilize areas of erosion and repair constructed stream improvements that are damaged during heavy flows. Many of these repaired deficiencies are identified through the Preventive Maintenance inspection process, as well as the condition assessment program, and are required to be completed within a specific timeframe under the City's NPDES permit conditions. When a repair is identified through the inspection process; the NPDES permit specifies that the City will conduct repair of the facility within 6 months for catch basins, one year for all other facilities besides catch basins and up to two years for larger repairs that cost \$25,000 or less; repairs that exceed this amount can be scheduled farther into the future through either CIP work or a scheduled timeline.

This program also provides installation of new drainage structures in response to public drainage and/or flooding problems. Examples include lot connections (connecting downspout lines and footing drains to the City's piped system), and installing catch basins and segments of pipe to problem areas to improve system performance. On average, the installation portion of the program provides up to 10 lot connections, 10 new structures and over 400 feet of new pipe annually. Program services reduce flooding of homes and businesses and resulting customer claims and economic losses to the City as well as reducing environmental impacts to streams and lakes. Preventative maintenance and repair activities prolong the life of the aging infrastructure. Typical staff duties within this program consist of operating heavy equipment for excavation, removal and installation of drainage infrastructure, conducting traffic control, providing system research to diagnose problems, performing construction activities within critical areas and working with customers to find solutions to drainage problems.

Staff included in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing repair and installation work maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Short term benefits of funding this proposal lessen the risk of flooding, property damage, customer claims and economic losses to the City. Long term benefits include protection of surface water quality, support of fish and wildlife habitat, protection of the environment, and maintenance of the City's compliance with the NPDES permit and other regulatory requirements.

Repairs are typically performed as reactive maintenance which limits the scalability of the proposal. These are demand-driven dictated by the number of defects that are detected through inspections, public reporting and condition assessment. Timely repairs are completed to mitigate environmental damage, meet NPDES permit requirements, minimize damage claims and reduce traffic impacts.

Factors in the Healthy and Sustainable Environment outcome:

Water

Surface and Stormwater Management: Ensuring compliance with state and federal Stormwater regulations: The following mandates direct the work related to this proposal:

Clean Water Act/ National Pollutant Discharge Elimination System Phase II Municipal permit: The NPDES permit establishes repair requirements and timelines. WAC 173.201A; Water Quality Standards for Surface Waters of the State of Washington: applies to repairs conducted to achieve water quality standards.

Natural Environment

Healthy lakes, streams and wetlands

The Storm and Surface Water Repair and Installation Program provide ongoing repairs and new installations that ensure the Stormwater system is functioning as designed. Cracked or broken pipes and structures designed to trap sediment may not be functioning as designed if needed repairs are not completed. Repair and installation of drainage structures, pipes and storage areas helps to ensure the drainage system is operating at capacity during heavy rains, providing storage and controlled release of run-off to reduce the likelihood of flooding. A portion of the repair and installation program focuses on managing the banks of streams to prevent or reduce erosion. Areas subject to heavy erosion can produce large amounts of sediment building up in our waterways and increasing the risk of flood and/or damage to aquatic habitat (i.e., sedimentation of gravel salmon spawning beds).

The final discharge for all drainage in Bellevue is to our streams and lakes. Ongoing repair of drainage facilities helps prevent pollutants from traveling past a structure that is designed to trap the pollutants. Installation of new structures allows for improvements to the drainage system that further the reduce pollutants reaching streams and lakes.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

Ensure that surface water quality and quantity are adequate to provide a suitable environment for plants and wildlife, and to meet the recreational needs of our community. Ensure that storm and surface water runoff is controlled to minimize negative impacts such as erosion and flooding. Restore, manage, preserve and improve natural environments and the habitats they provide.

Citywide Purchasing Strategies:

Provide for the best value in meeting community needs - The repair and installation program ensures that the drainage system is kept in good working order to protect the public's investment and reduce flooding during heavy rains. Repairs also help to reduce road hazards such as potholes surrounding manholes and loose covers. Ensure that services are "right sized" - Resources within this program are sized to meet the repair and installation demands for short turn around, in-house work. If a repair job is large and complex, it will most likely be referred to the Engineering division to be included in upcoming CIP work. This allows in-house crews to concentrate on repair and installation projects that provide the best value to our customers. Ensure that

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

services are right sized - Contractors are used to perform repairs that can be time consuming in nature or where specialty resources are needed. They may be used for an entire job, a series of similar jobs around town or only for a portion of a job for which in-house crews do not either have the resources or expertise to complete.

Factors in other outcomes:

Improved Mobility; Traffic Flow - With the majority of catch basins, pipes, manholes and vaults located within the footprint of the roadway, repairs are often conducted within the lane of travel. Loose covers, minor sinkholes and loss of pavement around structure frames cause defects within the roadway that can cause travel problems and potential claims.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	<u>2016</u> <u>Target</u>
140.0293	Utilities: Number of Surface Water repairs	260	270	332	326	200	200	200
140.0371f	Utilities: Labor hours per catch basin/manhole repair	N/A	12.08	12.77	15	10	10	10

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

20k increase in both years for increased disposal costs

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	4.65	4.65	Expenditures	368,310	383,068
LTE	0.00	0.00	Personnel	469,377	486,683
Total Count	4.65	4.65	Supporting Revenue	0	0
			Rev-Exp Balance	-837,687	-869,751

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Storm and Surface Water Infrastructure Condition Assessment		
Proposal Number:	140.23NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.23NA	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Don McQuilliams, x7865

Section 2: Executive Summary

The Surface Water O&M Infrastructure Condition Assessment Program uses Closed Circuit TV (CCTV) equipment to provide digital images of the inside of drainage pipes. These images are used to evaluate and identify defects that need repair. Undetected defects can lead to catastrophic failures that have the potential to result in flooding, damage to roadways and down-slope properties, and liability claims. The overall goal of this program is to locate and repair defects within pipes before failures occur and to also assess the system for long-term repair and replacement needs.

Condition assessment provides valuable asset management information for the Utilities repair and replacement program by identifying and documenting overall trends in pipe condition. This is essential information when developing long-term replacement funding strategies for aging infrastructure.

Section 3: Responsiveness to Request For Results

The Surface Water O&M Infrastructure Condition Assessment Program examines the inside of drainage pipes to identify deficiencies that can lead to system failures. Utilities works closely with the Transportation Department to prioritize video inspection of pipes under streets to be overlaid so that necessary repairs can be completed prior to paving. It is more cost-effective to repair defects before repaving than to incur costly grind and overlay expenses to repair failures that occur after roadway resurfacing. Other drainage pipes inspected under this proposal include "critical pipes" (e.g., large diameter pipe, pipes under main arterials) with high consequence of failure and older pipes that are more likely to fail.

Typical staff duties associated with this program include coordinating work between the Utility and the contractor, review the video to identify deficiencies within the system and document needed repairs to be completed by Surface Water O&M or Utility's Engineering Division via the CIP.

Historically this program has relied solely on outside contractors to perform the video assessment work. This resulted in timely delays in obtaining the video for review by staff due to constraints experienced by the contractors outside of the Utilities control. Over the past few years, Surface Water O&M has been working with Wastewater staff to utilize in-house video assessment resources to perform a portion of the previously contracted video assessment. This improvement in process is yielding positive results and will continue through the 2015-2016 budget cycle as a pilot to collect further data in support of in-house operations.

This proposal conducts video assessment of storm drainage pipes at the rate of about 2% of the piped drainage system or approximately 8 miles per year. A 2004 study by Black & Veatch study recommended that the City clean and inspect 10% of the drainage pipes annually. The City has over 400 miles of Stormwater pipes and inspecting 10% annually would require a very large investment with significant rate impacts. However, based on failure rates and claims experience, the target of assessing 2% of the system annually was established. This rate of 2% annually will be further evaluated over this upcoming budget cycle to see if it is still right-sized for the City's current needs and operations.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

This proposal is scalable by reducing the amount of pipe inspected annually but is not recommended. The severity of the defects identified under this program has been significant over the years. Reducing the funding level of service would increase the risk of paving over storm system components that are on the verge of failure resulting in higher costs of repair if a failure does occur. Scaling back this program would also have negative long-term effects on the overall asset management of the drainage system.

Information collected through condition assessment identifies ongoing trends in differing pipe materials to help with planning for future repair and replacement funding. For example, over time it has been found that corrugated metal pipe is already experiencing higher failure rates due to rust and decay. Trending patterns aid in the decision making of where the condition assessment program as well as the repair and replacement program will focus resources now and in the future.

Factors in the Healthy and Sustainable Environment outcome:

Water

Surface and Stormwater management - Condition assessment of the drainage system proactively identifies defects within the system that will cause blockages or system failures if unaddressed. These defects are located and repaired, minimizing the impacts of high volume flows and flooding.

Natural Environment

Healthy Lakes, streams and wetlands. Proactive condition assessment leads to repairs that prevent pollutants from entering the surface water system, and lakes, streams and wetlands, through cracks or failures in the pipelines.

Healthy and Sustainable Environment purchasing strategies:

Ensure that storm and surface water runoff is controlled to minimize negative impacts due to erosion and flooding. Ensure that surface water quality and quantity are adequate to provide a suitable environment for plants and wildlife, and to meet the recreational needs of our community. Keep our living environment clean and free of waste, debris, and toxic materials.

Citywide Purchasing Strategies:

Provide for gains in efficiency and/or cost savings. Synchronizing surface water condition assessment activities with the Transportation Department's pavement overlay program creates substantial cost savings. Incremental cost to repair underground pipes before planned paving is substantially lower than the expense to cut and repair a street segment after repaving. Proactively identifying and completing necessary repairs also lessens the city's liability related to potential flooding and damage claims. Ensure that services are "right sized". A 2004 study by Black & Veatch recommended that the City clean and inspect 10% of the drainage pipes annually. The City has over 390 miles of stormwater pipes and inspecting 10% annually would require a very large investment with significant rate impacts. As a result, the target of assessing 2% of the system annually was established. This percentage will likely need to be adjusted upwards in the future as the system ages and failure rates increase. Ensure sound management of resources and business practices. Proactively assessing the drainage system and repairing deficiencies prior to failure decreases flooding and erosion. Necessary repairs are proactively scheduled rather than reacting to a failure in the system. Utilities works closely with the Transportation Department to coordinate repairs and pavement overlay.

Factors in other outcomes:

Improved Mobility; Traffic Flow - Blockage or failure of drainage pipes during heavy rains can cause flooding of roadways. Condition assessment and repair of diagnosed defects reduce the possibility of flooding. Responsive Government; Customer Focused Services - Bellevue citizens and business owners expect that even during heavy rains, the drainage system will operate in an effective manner to minimize localized flooding.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0294	Utilities: Number of surface water pipe defects identified through condition assessment activities requiring repair or replacement	19	7	11	32	25	25	10
140.0295f	Utilities: Percent of surface water system video inspected	N/A	1.36%	1.41%	2%	100%	100%	100%
140.0296	Utilities: Linear feet of surface water condition assessment performed	N/A	28,668	29,777	32,861	50,000	50,000	50,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	1.20	1.20	Expenditures	94,299	94,086
LTE	2.00	0.00	Personnel	187,072	130,396
Total Count	3.20	1.20	Supporting Revenue	0	0
			Rev-Exp Balance	-281,371	-224,482

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Storm & Surface Water Preventive Maintenance Program		
Proposal Number:	140.24NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.24NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Don McQuilliams, x7865

Section 2: Executive Summary

The resources in this proposal fund preventative maintenance activities related to the City's storm and surface water system. For the drainage system to function correctly and provide adequate flood control, it must be kept free of excessive debris and sediment. These can cause blockages of catch basins and pipes during heavy rains leading to flooding, property damage claims, and environmental degradation. Sediment is also a pollutant. The drainage system contains a variety of water quality facilities that trap oils and other pollutants from roadways and allow for their removal during maintenance. Because the final discharge for all drainage in Bellevue is the City's streams and lakes, system maintenance is essential to keep them free of the sediment and pollutants generated from roadways and other impervious surfaces. The majority of maintenance activities funded by this proposal are mandated under the Federal National Pollutant Discharge Elimination System

Section 3: Responsiveness to Request For Results

The City of Bellevue Storm & Surface Water system is comprised of:

Over 400 miles of underground pipe More than 20,000 catch basins and manholes Over 350 water quality and flow control facilities along with 11 large regional facilities 86 miles of open ditches Over 80 miles of stream in public/private ownership And 860 acres of wetlands and riparian areas

To keep the system in good working order, the Surface Water O&M Section regularly performs inspection and cleaning operations of structures, pipes and open facilities such as detention ponds. During inspections, the system is inspected for sediment level as well as any deficiencies such as cracks and loose or broken components. Maintenance of the pipes and structures is typically performed through the use of two combination Eductor trucks designed to clean storm and sewer systems as well as excavators that are rented as needed for removal of sediment from detention ponds and stream channels.

Typical staff duties within Surface Water O&M consist of operation of Eductor trucks, operation of heavy equipment, inspection of storm system components included performing confined space entries as needed and making corrections to the Storm & Surface water utility grid maps. Two lead workers oversee the preventive maintenance work closely with a third lead worker who oversees repairs of the system as well as a crew leader, a technical specialist and a senior engineering technician.

Part of the success within this program over time has been the ongoing efforts towards innovation and efficiency improvement processes. During the last budget cycle we explored different methods of inspecting and cleaning catch basins which resulted in greater efficiencies and currently we are working with the Wastewater O&M Section to evaluate the effectiveness of a combined video assessment program that is designed to save on contracted costs by utilizing in-house staff and can deliver the condition assessment data quicker than contracted vendors.

This proposal reflects an increase in repair and maintenance funding of \$118,000. \$68,000 of this was approved in the last budget process as new costs for incorporating the South Bellevue annexation area but was never added to the Surface Water O&M. The remaining \$50,000 is for hiring contractors to help with cleaning of catch basins and for increased maintenance costs related to constructed stream channels, detention ponds and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

ditch maintenance.

This proposal is scalable to the extent of the proposed additions mentioned in the prior paragraph. Beyond that, the Storm & Surface Water operations and maintenance program was scaled back during the last budget cycle to the minimum necessary to meet mandated requirements while still providing a reasonable level of service to customers.

Factors in the Healthy and Sustainable Environment Outcome:

Water

Surface and Stormwater management: Ensuring compliance with state and federal stormwater regulations:

The following Mandates and Contractual Agreements direct the work related to this proposal:

Federal Clean Water Act (aka Federal Water Pollution Control Act) RCW 90.48, Washington Water Pollution Control Law The National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (a federal Clean Water Act mandate) – Specifies surface water system maintenance standards and timelines. WAC 173-175 (Dam Safety) – Requires the City to inspect and conduct needed repairs and maintenance to eight out of ten regional detention facilities Coal Creek/Newport Yacht Club sedimentation agreement

Natural Environment

Healthy lakes, streams and wetlands Open space, natural areas and greenbelts Wildlife habitat The Storm and Surface Water Utility manages many tracts of open space, wetlands and stream corridors around the City for the purposes of minimizing sediment and pollutants from entering our lakes, streams, and wetlands. These properties also provide habitat to wildlife and help to preserve the tree canopy and native vegetation.

Purchasing strategies in the Healthy and Sustainable Environment Outcome:

Ensure that storm and surface water runoff is controlled to minimize negative impacts due to erosion and flooding. Ensure that surface water quality and quantity are adequate to provide a suitable environment for plants and wildlife, and to meet the recreational needs of our community. Keep our City clean and free of waste, debris, and toxic materials. Manage, maintain, preserve, and restore natural environments and the habitats they provide.

Citywide purchasing strategies:

Ensure sound management of resources and business practices: The majority of the preventive maintenance program work conducted is mandated through the City's NPDES permit or other legal obligations. Work is accomplished through a mix of in-house staff and contract funds that allow for greater flexibility. Use an evidence based approach to determine how to achieve outcomes: By proactively inspecting and identifying cleaning and sediment removal needs prior to sending out crews to perform the work, the preventive maintenance program has the flexibility to focus workload efforts to those areas that have the highest needs providing the most effective use of resources and associated costs.

Factors in other outcomes:

Improved Mobility; Existing and Future Infrastructure – Much of the drainage system within Bellevue is under streets and sidewalks. Preventive maintenance of the system aids in the overall planning, safety and maintenance of the transportation system.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0289	Utilities: Number of surface water claims paid due to system failure	1	2	1	0	2	2	2
140.0290	Utilities: Number of surface water claims paid greater than \$20,000	1	1	0	0	0	0	0
140.0298f	Utilities: Percent of NPDES Required Inspections Completed	N/A	100%	100%	100%	100%	100%	100%
140.0301f	Utilities: Percent of surface water preventive maintenance work orders completed	100%	100%	100%	100%	100%	100%	100%
140.0349f	Utilities: Percent of surface water structures inspected	N/A	32.05%	22.23%	38%	25%	25%	25%
140.0400	Utilities: Total cost of storm and surface water claims paid	\$57,667.00	\$38,056.00	\$1,971.00	\$0	\$25,000	\$25,000	\$25,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

\$50,000 each year for channel maintenance between Phantom and Larsen Lakes.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	10.95	10.95	Expenditures	698,527	698,196
LTE	0.00	0.00	Personnel	1,040,211	1,078,999
Total Count	10.95	10.95	Supporting Revenue	0	0
			Rev-Exp Balance	-1,738,738	-1,777,195

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Telemetry and Security Systems		
Proposal Number:	140.25NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.25NA	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Dennis Fugier, x7940

Section 2: Executive Summary

This proposal provides for the maintenance, operation, and repair of utilities telemetry (remote monitoring and data transmittal) sensing and measurement of information such as reservoir levels, water pressure and flows, sewage pump station levels, and storm retention pond levels at remote pump stations/reservoirs and transmission of that information to a central location, SCADA (Supervisory Control & Data Acquisition), and security components of the water, sewer, and surface water systems. Use of telemetry and SCADA equipment enables continuous automated monitoring and control of utility systems and significantly reduces operational staff needs. In addition, security systems continuously monitor water reservoirs and pump stations for signs of intrusion and notify operators of any security breaches 24 hours a day/365 days a year. These systems work to maintain drinking water quality, supply and security, avoid sewer overflows, and effectively manage regional storm water facilities.

Section 3: Responsiveness to Request For Results

This proposal directly supports the operations of the water, sewer, and surface water systems that ensure the safe, reliable supply of drinking water, provide water site security, effective removal of sewage from homes and businesses, and support the control of surface water runoff to minimize flooding and environmental damage.

Imagine operating 25 water reservoirs, 23 water pump stations, 13 water inlet stations, 47 sewer pump/flush stations, 11 rain gauge stations and 12 regional detention facilities manually. "Driving" to these facilities would be a significant challenge without centralized systems in place to monitor and adjust system performance. Telemetry/ SCADA systems are the "brains, command and control" of the City's piped utilities, and allow staff to operate and regulate the flow and pressure of drinking water; control sewage pump stations; and regulate the storm water flows at the Regional Detention Facilities (RDFs). After the events of 9/11, Utilities undertook additional efforts to secure water reservoirs and pump stations from deliberate contamination. All of this equipment requires installation, repair, replacement/upgrade, preventive maintenance, calibration, programming, and testing.

Telemetry/ SCADA systems permit automated monitoring and control of the water, sewer, and surface water systems. The system warns in "real time" around the clock (24/7) when systems are operating outside normal parameters and allows operators to make adjustments and decisions based on real-time data using remote access and control. Most system problems can be detected and addressed with minimal time lost. Examples include high water reservoir level high "wet well" sewage level. To ensure the effective performance of telemetry and SCADA equipment, ongoing installation, maintenance, and repair activities are required: The communications and control system infrastructure consists of remote telemetry units at each site, fiber optics, and a leased data line and network that provide two-way data and control to remote sites, City Hall, and the BSC.

The centralized system which controls the pump stations, reservoirs and regional detention facilities. In addition, data is acquired from the sites to support decision-making. Preventive maintenance, repair,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

monitoring, upgrading, programming, and operational support for the Graphical Interface, SCADA collection system, and the Programmable Logic Controller (PLC) systems, require 2 servers, 5 client computers and Multiple PLCs.

Instrumentation components: Include field devices used for monitoring pressure, level, flow, temperature, water quality, power monitoring, and other variables as required at remote sites.

Electrical apparatus Includes all electrical and control systems at utility pump stations and monitoring sites.

The FTEs requested under this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing this work maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, windstorms, earthquakes, as well as other unforeseen disasters.

Mandates and Contractual Agreements:

Public Health Security and Bioterrorism Preparedness and Response Act, Public Law 107-188: Requires drinking water utilities to conduct vulnerability assessments and use the results to develop emergency response plans.

Telemetry/SCADA and Security systems lessen the possibility of a terrorist/ intentional attack and the impacts if an attack occurs.

Short- and long-term benefits of this proposal: Short term: (1) delivery of drinking water where and when it is needed for customer daily use, and to cope with local or regional water supply system failures. Support firefighting response by allowing operators to maintain or if needed, increase water supply to the hydrants used to fight the fire. (2) Conveyance of sewage from homes and businesses without overflows into homes, businesses or the environment. (3) Management of storm water to minimize flooding of streets, homes and businesses.

Long term: With the proper level of preventive maintenance and repair, the telemetry/SCADA system will continue to perform as designed to help prevent premature failure of expensive pumping systems, valve systems, and monitoring equipment, while optimizing drinking water quality. Historical data provided by telemetry and SCADA systems allows for trend analysis of system and equipment usage for asset management purposes

Degree of Scalability and performance: The service levels proposed balance the need for reliable delivery of safe and sufficient drinking water, efficient and reliable removal of sewage, and management of storm water runoff to prevent flooding with the costs to provide telemetry, SCADA and security services and the relative risks associated with service failures. The effectiveness performance measures for this proposal all emphasize the criticality and zero-tolerance for SCADA and Security equipment failures and reinforce that a very high level of service is required to effectively operate these systems. Because telemetry, SCADA and security system failures have high consequences of failure, these service levels support the aggressive goals for reliability and are not readily scalable without substantial risk and liability

Consequence of funding at a lower level: Similar to those described above.

Factors in the Healthy and Sustainable Environment outcome:

Factor 1: Air. Fuel energy savings and greenhouse gas emissions are reduced by requiring less driving to sites.

Factor 2: Water. Telemetry/SCADA systems conserve water and energy while promoting optimal drinking water quality. Water reservoir turnover is monitored and controlled by SCADA to benefit water quality while minimizing pumping costs to the ratepayer. In addition these systems can provide for early warning of catastrophic failures.

Factor 2: Water. Telemetry and security systems are critical to the delivery of reliable, safe, and sufficient clean drinking water, efficient and reliable removal of sewage, and management of storm water runoff to prevent flooding, stream erosion.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Factor 3: Natural Environment. Telemetry and security systems help to ensure reliable delivery of drinking water, removal of sewage, management of storm water runoff. Maintenance is proactive and flags issues that could otherwise result in environmental damage (flooding, erosion, sewer overflows, and insufficient water for emergencies). These systems support “waste management” by controlling the infrastructure and services to reliably remove waste from homes and businesses in a manner that protects stream, lakes, and wetland habitat for fish and other species. Telemetry also reduces FTE needs, equipment and fuel costs.

Purchasing strategies: Ensure reliable water meeting the needs of the environment and our community with a safe, supply of drinking water to and removal of wastewater from homes and businesses; ensure that storm and surface water runoff is controlled to minimize negative impacts such as erosion and flooding.

Telemetry, SCADA and security systems leverage technology to operate the water, sewer, and surface water components reliably with minimal labor costs and an estimated savings of 5+ FTEs.

Efficiencies/Innovations: Automated Telemetry, SCADA and Security Systems provide significant long term cost savings by reducing operational staffing needs by 5+ FTEs on an ongoing operational basis and 10+ FTEs when emergency conditions would otherwise require manual operation of reservoirs, pump stations and flood control gate settings. Telemetry and security systems provide remote after-hours control of the piped systems and security avoiding drive time and delay. Telemetry/SCADA lower electricity use at pump stations by monitoring drinking water quality at reservoirs and optimizing reservoir turnover.

Customer Impact: Increased risks to the drinking water supply; increased sewer overflows; compromised fire flows affecting hydrant operations.

Investment/Costs already incurred: Substantial past investments in Telemetry, SCADA and Security Systems equipment would be negatively impacted if the equipment is not maintained and repaired. Utilities have invested to secure reservoirs and pump stations through fencing, upgrading hatches and installing surveillance equipment. CIP investments include Water telemetry and Wastewater telemetry. In-service process instrumentation, transducers, flow meters and other miscellaneous equipment are also critical to services.

- Other: If telemetry/SCADA equipment becomes unreliable, remote monitoring and control functions will be compromised. This loss will quickly overwhelm operations staff that will have to manually adjust system settings in the field. Water quality monitoring would be compromised and the security of drinking water supplies would be at greater risk. There could be increased failures, claims, and risk of violations/fines for all three piped utilities.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0259	Utilities: Number of water/sewer service interruptions caused by SCADA/Telemetry system	0	0	0	0	0	0	0
140.0260	Utilities: Number of security breaches discovered but not detected at the time of the intrusion	0	0	0	0	0	0	0
140.0261f	Utilities: Percent of telemetry sites planned preventive maintenance activities completed	N/A	N/A	100%	97%	100%	100%	100%
140.0317	Utilities: Number of water or sewer station failures caused by SCADA/Telemetry failures	0	0	0	0	0	0	0

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

This proposal includes \$12,000 to fund SCADA/Telemetry hardware / Software license fees, support, and update or replacement costs.

Other increases in this proposal are from transfers of funds from water, waste water, and surface water proposals and result in ZERO net increase.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	3.80	3.80	Expenditures	124,335	124,211
LTE	0.00	0.00	Personnel	449,505	465,296
Total Count	3.80	3.80	Supporting Revenue	0	0
			Rev-Exp Balance	-573,840	-589,507

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Quality Regulatory Compliance and Monitoring Programs		
Proposal Number:	140.26PA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:	N/A, 140.27DA, 140	Proposal Type:	Existing
Previous Proposal:	140.26PA	Budget Status:	Recommended
Attachments:		Primary Staff:	Mike Graves, x2030

Section 2: Executive Summary

This proposal provides Water Quality Regulatory Compliance and Monitoring Programs necessary to:

- Minimize the risk of drinking water supply contamination and resultant human illnesses and/or deaths; and
- Protect surface water quality, reduce pollutant discharges, and provide emergency spill response.

These programs are the primary means of managing compliance with the Safe Drinking Water Act's water quality sampling/monitoring requirements. In addition, they address operational mandates of the Clean Water Act and the City's National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. These programs also ensure compliance with an array of other requirements and contractual agreements, such as the Endangered Species Act (ESA) Regional Road Maintenance Program. This encompasses a wide range of activities from field work, water quality sampling and analysis, regulatory reporting, emergency response, and enforcement, to City Council communication/policy support.

Section 3: Responsiveness to Request For Results

This proposal fulfills the City's water quality monitoring and compliance requirements and provides resources to educate the community in the areas of drinking water and surface water quality. These programs to ensure that the city is compliant with mandates imposed by state and federal regulators, as well as, provide emergency response to the community

Staff implement drinking water quality programs including:

- Staff ensures the City's drinking water is free of contaminants and aesthetically pleasing through mandated sampling, monitoring and analysis of the drinking water system, including source water, storage (reservoirs), and the distribution system. Programs include maintaining awareness of upcoming regulations, monitoring water quality, protecting against intentional contamination, coordinating water system operations and maintenance practices to ensure optimal operation of the water system, inspecting water infrastructure for hazards, and reporting as required by law. As a critical public health measure, Bellevue has never had a violation of state or federal drinking water regulations, and manages programs to reduce the incidents of drinking water aesthetic complaints to a target level of less than one per thousand customers. This proposal also includes operation and maintenance of the city's emergency drinking water wells. These critical infrastructure are the only drinking water sources Bellevue has outside of the sole reliance on the Seattle system. The wells are kept in a state of readiness through ongoing sampling and testing should catastrophic loss of water from the Seattle system occur.

Staff implement surface water quality field programs including:

NPDES mandated Illicit Discharge Detection and Elimination Program (IDDE): (1) response, containment, and clean-up when necessary of illicit discharges (pollutants), and; (2) field assessment of discharges from drainage pipes into waterways to detect, trace and eliminate illicit discharges (such as paint, oil, sediment, etc.). Program includes community education, mapping, field investigation, codes and enforcement, reporting to Ecology, documentation, and providing citywide training. This program provides the community with field staff who deliver "boots on the ground" education directly to customers in Bellevue. Staff uses their water quality

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

chemistry expertise to educate the public on how site specific behaviors affect the environment and work with community members to develop solutions to prevent further pollution. Due to program effectiveness, citizen awareness, and citywide staff training, the number of illicit discharges detected and corrected annually has grown from 60 in 2009 to over 200 in 2013, furthering stewardship of our natural resources.

Surface Water Monitoring: Sampling and analysis of lakes and streams to support water resource management, investigation, and resolution of water quality issues. Program includes response to customer water quality concerns, research and study of best management practices, and oversight of activities for Endangered Species Act Compliance.

- Emergency response to pollution, sewage overflows, or potential drinking water contamination that threatens public health or the environment. Since 2009 staff responded to an escalating number of potential pollutant spills and overflows into lakes and streams threatening water resources. In 2009 that number was around 62 responses. Due to increased citizen awareness and education that number was over 200 in 2013. As well, staff respond to an average of 1-2 coliform “false positive” samples in the drinking water system. While not a violation, response to confirm the water system is safe is a critical element of drinking water quality programs.

This proposal helps fund a Policy Advisor who provides City Council and Departments support on policy, legislative and regulatory matters to protect Bellevue’s interests and provide advocacy. Includes monitoring and analysis of on-going politics; coordination with local and regional partners; and providing Council with options and recommendations. Outcomes directly impact rates and taxes paid by the community.

Citywide Purchasing Strategies Addressed by this Proposal:

Scalability: Services in this proposal are scaled to provide the minimum resources necessary to meet mandates and provide adequate services to protect the quality of the community’s drinking water and surface water.

Efficiencies have been implemented so that current resources can continue to meet current federal and state mandates. Fewer resources would gravely affect city compliance with state and federal regulations, increase the potential for water born public health crises, and increase the City’s liability exposure (fines, lawsuits, jail).

Collaboration/Partnerships: Bellevue participates with other water purveyors in a state approved regional monitoring program, reducing the number of monthly samples taken and consolidating sample reporting. In addition, staff participates in regional emergency programs (some funded through federal grants) to train and resource deployment of emergency water supplies. Bellevue’s response program has become a model and we’ve trained other jurisdictions as far away as Portland. For surface water, we work with local and regional partners to investigate pollutant sources, educate the public, and are a catalyst for community action by moving Bellevue businesses to clean up their locations to protect the environment.

Innovation: By leveraging resources in multiple Utilities field sections, the City’s emergency water wells have been redeveloped and activated using only in-house resources, saving the city hundreds of thousands of dollars in consulting and outsourcing of pump installation, maintenance, and monitoring costs. For the drinking water system, a “snap shop” tool for the on-line water quality analyzers was developed in-house and allows staff to get an instant view of overall conditions in the distribution system, saving resource time and allowing a holistic view of system conditions.

Key HSE Community and Performance indicators addressed by this proposal:

This proposal contributes to all four HSE community indicators through ongoing drinking water and surface water quality programs to ensure protection of public health and the environment. Drinking Water Quality programs are directly responsible for measure % of days/year in compliance with state and federal drinking water regulations, which is consistently 100%

Factors/Purchasing strategies addressed by this proposal:

Factor 2: Water

Reliable Delivery of Clean Water –Programs in this proposal are the City’s primary means of ensuring water system activities deliver the highest quality drinking water from Bellevue’s distribution system. This program oversees or contributes to many aspects of Bellevue’s safe drinking water, from policy support to Cascade, to field sampling and analysis, maintenance programs, codes/standards, compliance reporting, to customer

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

aesthetic concerns. The annual drinking water quality report delivered to all water customers provides information/education on drinking water quality and water conservation efforts and practices. This report is available in 6 languages, online and in-print, for our multi-cultural community. In addition, management of the City's emergency drinking water wells to ensure that this "water source is managed in a way that best protects water quality," is an important aspect of these programs.

Surface and Stormwater Management-

The IDDE Program reduces the negative impacts of pollutants through programmatic investigation activities. Reduction of environmental pollution is a direct result of the IDDE Program. The IDDE Program protects the environment from immediate hazards and reduces the threat of pollution in addition to providing ongoing education on the proper storage and removal of waste from homes and businesses. Surface water monitoring identifies long terms trends in water quality, as well as, immediate issues that can be mitigated through installation of best management practices. The ESA Regional Roads Maintenance Program is a commitment by the City to implement best practices that help to reduce the degradation of surface waters as a result of routine maintenance programs throughout the city.

Factor 3: Natural Environment and Factor 4: Built Environment

The intent of the IDDE program is to protect and enhance the natural environment by identifying pollutants, tracing them to their source, and removing them as a cause of water pollution. As stated above, this is the City's primary method of field reconnaissance, working directly with customers to address site specific issues.

General HSE Purchasing Strategies, Improvement and synergy:

This proposal fosters a collaborative approach and champions "One City" service delivery through education, investigation, and mitigation in a partnership with the community to understand, remove, and identify ways to prevent pollution. The annual drinking water report attempts to reach as many residents as possible through delivery in six of the most frequently spoken languages in Bellevue. In addition, programs in this proposal work with multiple city departments to leverage resources by providing in-house training, coordination of work, and provide technical assistance citywide as subject matter experts in surface and drinking water quality.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0264	Utilities: Percent of days per year in compliance with state and federal drinking water regulations	100%	100%	100%	100%	100%	100%	100%
140.0265f	Utilities: Number of drinking water quality complaints per 1,000 water service connections (target of 2 represents 82 complaints)	1.28	3.53	2.88	3	2	2	2
140.0270	Utilities: Compliant with all Surface Water Regulatory Requirements	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140.0271	Utilities: Number of illicit discharges detected and corrected annually	151	188	117	229	155	155	155

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

Citywide NPDES costs in this proposal were reallocated to proposal 140.64

32k in 2015 and 35k in 2016 added to reflect increased cost of DOH water system operating permit

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	2.80	2.80	Expenditures	147,992	154,758
LTE	0.00	0.00	Personnel	351,807	364,027
Total Count	2.80	2.80	Supporting Revenue	0	0
			Rev-Exp Balance	-499,799	-518,785

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Private Utility Systems Maintenance Programs	
Proposal Number:	140.27DA	Outcome: Healthy and Sustainable Environment
Parent Proposal:	140.26PA,N/A	Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.27DA	Budget Status: Recommended
Attachments:	0	Primary Staff: Mike Graves, x2030

Section 2: Executive Summary

This proposal protects public health by preventing drinking water from backflow cross contamination, reduces pollutants in surface water, and funds the Fats, Oils and Grease program to reduce sewer blockages and overflows. These programs are mandated by the Federal Safe Drinking Water Act, Clean Water Act, and other regulations. Private Systems Maintenance Programs (PSMP) conduct field inspections and code enforcement at businesses and homes through education and code compliance for private water, stormwater, and wastewater systems to minimize public health risks, flooding, and pollution affecting homes, businesses, and the environment. Cross Connection Control (CCC), Private Drainage Inspection (PDI), Industrial Waste/Fats, Oils, and Grease (FOG) programs provide oversight of private infrastructure through education, inspection, and codes to ensure protection of public health and the environment and to protect the public infrastructure from premature failure or degradation.

Section 3: Responsiveness to Request For Results

PSMP ensures that appropriate testing and maintenance is performed at businesses and residences to ensure that they reliably protect public health and the environment. These programs provide education, inspection, and enforcement at over 90% of Bellevue's businesses and 4,000 residential properties. They have a direct impact on community values of ensuring that both public and private infrastructure protects public health and the environment. Staff in these programs work as "regulators" of private infrastructure.

Program descriptions:

- **Cross-Connection Control:** A state Department of Health mandated testing and certification program of nearly 12,000 backflow assemblies connected to the drinking water system. Backflow assemblies protect the water supply by preventing the reversal of the normal direction of water flow from a contaminated source into the drinking water system (backflow). For example, a hose end applicator for pesticides could poison drinking water. Since 2010 there have been three reported backflow incidents in Bellevue's service area. As long as they are addressed Bellevue is not in violation of drinking water regulations, however, even with a 96% certification compliance rate these instances do occur, leaving the drinking water system vulnerable to cross contamination. Fortunately in these cases no one was sickened. In addition, an average of almost 400 new preventers is installed in Bellevue every year.
- **Private Drainage Inspection:** An inspection program to protect lakes, streams, and wetlands. Utilities staff educate and inspect over 1500 privately-owned storm drainage systems for compliance with maintenance standards to ensure proper management for water quality and water quantity control. Private drainage systems are inter-connected with the public system and represent over half of the total drainage in Bellevue. If not properly maintained there are increased incidents of flooding/property damage and the cost of maintaining the public system increases through transference of sediment/pollutants. Ensuring they are maintained and functioning as designed is an important aspect of Bellevue's stormwater management program. This program also provides education to businesses on the proper storage, handling, and disposal of materials that can be hazardous to the environment. Compliance rates for maintenance of these systems averages around 73%.
- **Industrial Waste/Fats, Oils, and Grease (FOG):** The FOG program provides education on what can and cannot be disposed of in the wastewater system. In addition, it ensures that discharges to the wastewater system do not contain prohibited substances that create blockages or sewage overflows, prematurely degrade pipes,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

endanger personnel, or cause disruption of regional treatment systems. FOG system owners report maintenance activities by private vendors to PSMP to ensure compliance with regulations. The FOG program also provides site inspections and public education and training to restaurants and businesses on proper operation and maintenance of grease traps, interceptors, and the proper disposal of food waste and wipes. As with other programs, FOG handouts and posters are available in 5 languages to help bridge our multi-cultural communities understanding of FOG related issues.

Citywide Purchasing Strategies addressed by this proposal:

Scalability: This proposal is scaled to provide the resources necessary to implement programs at service levels to meet minimum state and federal mandates for program compliance. Continual process improvement has allowed PSMP to maintain minimum service levels in this proposal without the need for additional resources; however, steady program growth in all areas continues to strain resources in this proposal.

Innovation: In 2013 the CCC Program began piloting a statewide first of its kind electronic report submittal, reducing the burden of hand data entry. Program managers worked with state regulators to gain approval for electronic signature and reporting.

Sound Management of Resources and Business Practices: These programs use a creative approach to site visits to reduce the number of inspections and eliminate duplicative processes by considering all inputs and outputs on a property. When possible, water, wastewater, and storm drainage impacts of an entire property are considered in a holistic approach to provide maximum value and better customer service.

Key HSE Community and Performance Indicators addressed by this proposal:

This proposal helps ensure that both public and private infrastructure protects safe drinking water, and the natural environment. Through education, inspection, and enforcement of codes and regulations, it contributes directly to the measure, % of residents who agree that Bellevue provides water, sewer, and wastewater services and infrastructure that reliably ensures public health and protects the environment. In addition, as a mandated program, the CCC Program contributes to % of days/year in compliance with state and federal drinking water regulations, which is consistently 100%.

Factors/Purchasing strategies addressed by this proposal:

Factor 2 Water- This proposal meets the following Factor 2 strategies:

Reliable Delivery of Clean Water: The EPA lists cross connections as the #1 public health risk to drinking water systems. There are many examples of incidents of illness or death from cross connections in the U.S. The CCC Program protects drinking water by reducing the risk of backflow contamination from the nearly 12,000 backflow connections to the water supply. This mandated program provides education, assistance, inspection of potential hazards, and compliance for potential sources of contamination to the water supply.

Surface and Stormwater Management: The PDI Program works to ensure compliance with state and federal storm water regulations and to educate the public on the proper storage and disposal of materials around their businesses (source control). PDI provides education, inspection, and enforcement of water quality regulations to private systems that represent one half of the total drainage in Bellevue, to ensure that surface water quality and quantity are protected to provide a suitable environment for plants and wildlife, and to meet the recreational needs of our community. PDI helps ensure that storm and surface water runoff is controlled to minimize negative impacts such as erosion and flooding. It also provides education and inspection of private natural drainage/low impact systems such as rain gardens and pervious surfaces and provides advice to private citizens on their long term care and maintenance.

Wastewater Management: The FOG program is the City's primary regulation and enforcement of disposal into the wastewater system. It provides education and inspection for over 400 restaurants and businesses regarding best management practices, maintenance, prohibited disposal, and regulated maintenance activities to protect both the wastewater system and the natural environment from blockages and overflows. It also provides education to the community regarding food waste disposal and wipes in the wastewater system.

Factor 3 Natural Environment - This proposal contributes to Factor 3 by providing education, inspection, and enforcement at private utility systems that represent one half of the total infrastructure in Bellevue. Citizen understanding of their systems impact on the natural environment is key to the protection of lakes, streams,

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

and wetlands to help preserve natural habitat.

Factor 4 Built Environments -. Ongoing maintenance of private utility systems ensures that they prevent pollution and properly treat, or dispose of harmful byproducts. It helps to reduce operational costs, encourages stewardship and provides education and oversight of best practices for sustainable drainage systems (LID).

General HSE Purchasing Strategies, Improvement and synergy:

The CCC Program is piloting a first of its kind, electronic report submittal process where vendors submit reports directly to the City's data base. In addition, PDI is developing e-mail distribution to reduce the overhead of thousands of letters mailed per years to customers. These measures hope to reduce resource usage be more environmentally effective and improve program processes. In addition, staff in these programs is cross training to develop multidisciplinary skills to integrate inspections. Synergizing inspection processes to include multiple "types" of inspections (inspecting private water, storm, and sewer systems in one site visit) is creating more agile and flexible staff, improving efficiencies, and a more holistic approach to protecting all water resources. By leveraging partnerships with other agencies and colleges (BC) an industry-standard stormwater program is being developed. Certified "private" drainage inspectors will reduce the burden on utilities, ensure more equitable business practices, and create new employment opportunities in the industry. Inspection reports from "private" inspectors are accepted in lieu of city inspectors to reduce workload. This effort is still under development.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0272f	Utilities: Percent of Fat, Oil, Grease removal devices compliant with maintenance requirements	49%	70%	66%	58%	100%	100%	100%
140.0275f	Utilities: Percent of private drainage systems compliant with maintenance requirements	87.05%	83.97%	65.03%	73%	100%	100%	100%
140.0278	Utilities: Number of drinking water system contamination events due to backflow	2	0	0	1	0	0	0
140.0281	Utilities: Number of backflow assemblies tested annually	9,236	10,545	10,791	11,040	11,848	12,196	12,596
140.0319f	Utilities: Percent of planned private drainage inspections performed each year	76.73%	97.92%	89.64%	75%	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

Realignment of one existing FTE and Temp help from parent proposal to more accurately represent programs costs

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	4.75	4.75
LTE	0.00	0.00
Total Count	4.75	4.75

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	52,844	53,629
Personnel	520,226	538,673
Supporting Revenue	0	0
Rev-Exp Balance	-573,070	-592,302

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Solid Waste Waste Prevention and Recycling		
Proposal Number:	140.30NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.30NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Susan Fife-Ferris, x5216

Section 2: Executive Summary

City customers generate approximately 121,000 tons of solid waste annually, 66,000 tons of which is garbage that must be hauled to the local landfill. Efficient and effective management of solid waste (i.e., garbage, recyclables, and organic waste) is critical to the health and appearance of the City, its continued economic viability, and the sustainability of both the local and global environment. This proposal provides for the management of the solid waste collection contract with Republic Services, the continuation of the City's successful waste prevention and recycling programs, and the exploration of what the City will do in 2028 when it leaves the King County solid waste transfer and disposal system.

Section 3: Responsiveness to Request For Results

This proposal will provide:

Solid Waste Collection Contract Management: Staff manages the Citywide Comprehensive Garbage, Recyclables, and Organic Waste Collection Contract with Republic Services. The Contract, which is worth approximately \$20M annually, provides all garbage collection services, a variety of recycling, organic, and litter collection services, and billing/customer services. Managing the Contract includes troubleshooting issues, reviewing, analyzing, and making recommendations on Republic's requests, working to improve existing and add new services, handling customer issues, conducting annual contract performance surveys and compliance audits, reviewing annual rate adjustment requests, addressing regional solid waste issues, and conducting research and analysis. **Waste Prevention and Recycling Program Delivery:** These programs affect every resident and business employee in the City, and include outreach, education, and technical assistance to single-family, multifamily, and commercial customers, residential special recycling collection events, emergency debris management, school programs in partnership with the Bellevue School District, and regional coordination for garbage, recycling, and organic waste issues. Waste prevention and recycling preserves natural resources and helps keep customer garbage rates low by prolonging the useful life of the King County landfill - the cheapest disposal option currently available. The overall goal is to decrease the amount of garbage generated Citywide, increase waste prevention and recycling efforts, and comply with State mandates and the requirements set forth in the King County Comprehensive Solid Waste Management Plan. **Exploration of 2028 Transfer and Disposal Options:** Transfer and disposal of garbage collected within the City is currently managed by the King County Solid Waste Division under the terms of an Interlocal Agreement (ILA), which runs through 2028. The City has opted to not execute a new ILA, and needs to plan for how the garbage generated within its boundaries will be transferred and disposed of upon the termination of the current ILA. A consultant will be hire to start the exploration of the City's options and create a plan, including a timeline and financing options for any capital improvements that may be necessary.

Staff provides both internal and external coordination and collaboration to ensure that the City Council and Utilities have an efficient and centralized means of maintaining an effective voice at the regional, state, and federal level on issues that directly impact rates, taxes, and fees paid by City customers.

Funding for most waste prevention and recycling programs comes from grants funded from taxes and fees collected from City customers by the various granting agencies that are then returned to the City to be used for waste prevention and recycling programs. The grants include the 2-year King County Waste Reduction and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Recycling Grant, the 2-year Department of Ecology Coordinated Prevention Grant, and the 1-year Local Hazardous Waste Management Program Grant issued by the Seattle-King County Department of Public Health.

There are a number of State mandates and other requirements that the City must comply with, including: Solid Waste Collection Contract with Republic Services: A new Contract goes into effect at the end of June 2014 and runs through June 2021. It obligates the City to provide contract management, oversight, and assistance with outreach and education. Under State statute, the City undertakes the regulatory role for solid waste collection. RCW 70.95: The City assumes primary responsibility for Citywide solid waste management, and provides waste prevention, source separation, and recycling strategies for the collection of solid waste in an environmentally safe and economically sound manner.

The City is considered a leader in many solid waste management programs, including the City's innovative food waste recycling programs, which reach single-family residences and schools, and under the 2014 solid waste collection contract has been expanded to multifamily residences and businesses. Providing efficient and effective solid waste collection on a regular schedule is essential to ensuring a healthy and sustainable environment. Less garbage results in an extension of the useful life of the local landfill, this also results in lower disposal costs since the local landfill is currently the cheapest method of garbage disposal.

Continual outreach, education, and technical assistance are the keys to successful waste prevention and recycling efforts. When such efforts are stopped, waste increases, recycling rates decrease, and customer garbage costs rise. City customers currently generate approximately 121,000 tons of solid waste annually, 66,000 tons of which is garbage hauled to the local landfill, and the balance is diverted through recycling programs. Anticipated growth in the area's population will increase the amount of solid waste being generated within the City. To prepare for that eventuality, solid waste management remains a top priority and requires leadership and innovation by the City.

Factor 1: Air – Greenhouse Gas Reduction: From a long-term perspective, preventing waste and recycling materials reduces the need for new materials that otherwise would have been harvested or extracted, saving those resources for the future. Recycled materials also require less energy to be used in the manufacture of a new product. The reduced need for resources and energy directly reduces greenhouse gas production. The City's involvement in encouraging waste prevention and recycling of materials has a direct impact on the reduction of greenhouse gas both locally and beyond.

Factor 3: Natural Environment – Healthy Lakes, Streams, and Wetlands/Improved Wildlife Habitat: Waste prevention, recycling, efficient and effective solid waste collection, and outreach, education, and technical assistance to influence people's behaviors all support a clean living environment and the conservation of natural resources. The Natural Yard Care program and Waterwise Demonstration Garden educate homeowners on how to pick the right plants and how to properly maintain the landscape, resulting in less need for hazardous chemicals and pesticides, and less yard debris being generated. Natural yard care programs teach the value and importance of and techniques to maintain natural spaces. Less toxic options are promoted through the household hazardous waste program. Programs enhance the community's awareness of the value of natural spaces as part of an integrated ecosystem, and that these spaces can be managed in a way that prevent waste and use less toxic materials. Waste prevention and recycling outreach, education, and technical assistance teach that the natural environment is the source of all materials used by residents and businesses. An adequate supply of raw materials requires judicious use of existing non-renewable materials and healthy ecosystems to produce renewable materials year after year. Conservation of resources and protection of the natural environment is the foundation of the education and programs provided under this proposal.

Factor 4: Built Environment – Streets Free of Waste and Debris: Pursuant to the terms of the solid waste collection contract, staff ensures that litter is regularly removed from City streets.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Factor 4: Built Environment – Reduction, Reuse, and Recycling of Resources: All the programs delivered under this proposal are focused on preventing and reducing waste, promoting reuse opportunities, and encouraging the recycling of anything not prevented, reduced, or reused. Outreach, education, and technical assistance is provided throughout the single-family, multifamily, school, and business sectors to encourage waste prevention and recycling, and to promote the convenient methods that exist to recycle paper, glass, metal, plastics, and organics (i.e., yard and food waste).

Factor 4: Built Environment – Solid Waste and Hazardous Materials Management: Via staff oversight and management of the solid waste collection contract, the City ensures the timely and efficient removal of garbage and recyclables from homes, businesses, and public facilities, and ensures that litter is regularly picked up. This proposal also includes programs that educate residents and businesses about the proper handling and disposal of household and moderate risk waste. These programs are often conducted in cooperation with the King County Solid Waste Division and the Local Hazardous Waste Management Program. The goal is to keep the City clean and free of waste, debris, and toxic materials to ensure the safety of the public health, the environment, and maintain the City's high quality of life.

Addressing Citywide purchasing strategies:

Best Value. Waste prevention and recycling helps keep customer rates low by extending the useful life of the King County landfill, avoiding the costs of a new disposal option, which would be passed on to City customers. Waste prevention and recycling also allows customers to downsize their garbage container size, which reduces their bill, which is based on the size and collection frequency of their garbage container. Program materials are developed in a variety of languages to reach diverse communities. Leverage Collaboration. The City works closely with Republic Services (solid waste collection contractor), King County Solid Waste Division (regional planning coordination; Interlocal Agreement; granting agency), Department of Ecology (granting agency), Local Hazardous Waste Management Program (granting agency), Bellevue School District (program partner), and Point Cities (grant cooperation) on programs that increase participation in waste prevention and recycling activities. Example of programs includes providing support to school-based and business-based “green teams” that promote conservation activities within their organizations. Ensure Sound Management of Resources. All programs are either rate- or grant-funded, and are subject to review by Council, the Environmental Services Commission, and granting agencies providing funds. Staff works closely with partners to leverage resources and outreach activities wherever possible.

If this proposal is not funded:

The City would fail to comply with the State requirements of RCW 70.95, 70.95C, and 70.95I, and the terms of the King County Comprehensive Solid Waste Management Plan as required by the ILA. The City would also not be able to manage the ~\$20 million/year solid waste collection contract, conduct the annual customer service survey and contract performance audit, or spend the funds collected in accordance with contract requirements. The City would not be able to regulate the solid waste collection contractor for the customer, respond to customer requests, or provide extremely popular programs, such as the residential special recycling collection events and commercial on-site technical assistance. The City would fail to invest grant funds currently received on local waste prevention and recycling efforts, allowing funds collected from City solid waste customers to revert to the granting agency and be allocated to other jurisdictions. Thus, funds collected from City customers would not be spent in Bellevue. The City would not participate in regional planning and coordination efforts, and not be able to advocate for City customers for regional services (e.g., transfer station services). The City would not comply with the City's Environmental Stewardship Initiative Strategic Plan calling for a reduction of material consumption in City operations and a reduction of garbage taken to the landfill.

This proposal represents a base level of service as a result of cuts made in the last budget cycle, and costs cannot be adjusted downward without reducing the quality of solid waste services currently provided, which would disrupt the City's compliance with the terms of the solid waste collection contract. The City's progress

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

towards achieving state, local, and City goals would slow or stop, and the City would fall out of compliance with mandates and contractual requirements. Failure to expend allocated grants would also result in the money reverting back to the granting agency, meaning that funds collected from City customers would not be spent in Bellevue. The City would fail in its fiduciary duty of being a good steward of customer funds.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0004	Utilities: Solid waste collection contract customer satisfaction	97%	96%	95%	70%	80%	80%	80%
140.0006f	Utilities: Single-family Recycling Rate	67.91%	67.7%	67.83%	68%	69%	69%	69%
140.0009f	Utilities: Multifamily Recycling Rate	18.26%	17.74%	18.67%	20%	18%	18%	18%
140.0012f	Utilities: Meet State recycling goal of 50% of generated solid waste	41.99%	42.39%	45.75%	42%	50%	50%	50%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Solid Waste Collection Contract Rev. 2015 ~\$696,000/2016 ~\$712,000; Anticipated Grant funds 2015 ~\$310,000/2016 ~\$310,000; Balance: Util Rate Revenue

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	2.82	2.82	Expenditures	602,748	609,219
LTE	0.00	0.00	Personnel	366,320	378,985
Total Count	2.82	2.82	Supporting Revenue	1,010,250	1,027,250
			Rev-Exp Balance	41,182	39,046

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Storm and Surface Water Pollution Prevention		
Proposal Number:	140.31DA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:	140.26PA,N/A	Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.31DA	Budget Status:	Recommended
Attachments:		Primary Staff:	Susan Fife-Ferris, x5216

Section 2: Executive Summary

On an average day, tens of thousands of pounds of toxic chemicals enter Puget Sound's waterways, most of which is carried by storm and surface water that runs off roads, driveways, rooftops, yards, and other developed land. Most people are not aware that water flowing into storm drains is not treated. Under this proposal, staff provides mandated public education and outreach to residents and businesses as required by the National Pollutant Discharge Elimination System (NPDES) Permit, increasing understanding of storm and surface water issues, and promoting behaviors that prevent pollution locally and regionally.

Section 3: Responsiveness to Request For Results

Toxic chemicals flowing off roads, driveways, rooftops, yards, and other developed land impact storm and surface water quality and can have devastating impacts on the health of local lakes, streams, and wetlands, and the fish and wildlife populations that depend on them. Many people remain unaware of the threat it poses to the health of our water. In 2011, a City survey confirmed that almost half of residential respondents did not know storm drains connect directly to waterways or that water flowing down storm drains is not treated. Other surveys have shown that many people are unaware how simple changes in everyday behaviors can significantly reduce pollutants. Surveys also show a direct connection between increased education and assistance with an increase in awareness of surface water pollution issues and changed behavior. This proposal directly targets increasing public awareness and changing behaviors through outreach and education programs.

Some activities and programs covered under this proposal include Stream Team fish and invertebrate monitoring, restoration projects, riparian field investigations, education, and workshops; storm drain markers; natural yard care; car wash kits; used motor oil recycling; school curriculum and workshops; posters, displays, and other outreach materials; media outreach including news stories, public service announcements, and public presentations; STORM (a regional partnership); and, "Puget Sound Starts Here." While most elements of this proposal are rate funded, some funding comes from grants.

There are a number of State/Federal mandates and other requirements that the City must comply with, including:

NPDES Permit, effective August 2013 and runs through 2018: Requires the City to provide public education and outreach programs designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. RCW 90.48 (State's Water Pollution Control Law): Requires the City to maintain the highest possible standards to ensure the purity of all State waters consistent with public health and enjoyment, through educating the public that it is unlawful to discharge pollutants into local waters. Federal Water Pollution Control (Clean Water) Act, Title 33 United States Code, Section 1251 et seq.: Requires the City to educate the public to eliminate the discharge of pollutants into the Nation's waters.

Through outreach and education, staff educates residents on how to prevent pollutants from entering the storm drainage systems. This proactive approach is far less expensive than cleaning up pollution spills or repairing damage to waterways caused by pollution. Examples of innovative and creative activities include the Carbon Yeti educational campaign, which has been nationally recognized and replicated state-wide by the Department of Ecology and other organizations, and the volunteer Stream Team model, which is widely

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

adopted across the region.

Many activities in the Utilities' storm and surface water pollution prevention program have a direct and immediate impact on the local environment, helping to make it more healthy and sustainable. Examples include:

Car Wash Kits and Education: The average six-hour fundraising car wash generates 3,600 gallons of soapy, dirty water – enough water to fill 180 bath tubs! The average driveway car wash uses ~ 116 gallons of water. All the cars being washed across the City on a sunny day produces tens of thousands of gallons of waste water washing directly into local waterways. Proper practices can prevent this pollution.

Natural Yard Care Workshops: Residents that learn natural yard care techniques use less fertilizer, chemicals, and other toxic materials, and pass these practices to neighbors. All this adds up to less toxics being washed off during storms.

Motor Oil Recycling Program: One gallon of motor oil can contaminate one million gallons of lake water, and clean-up costs can be significant. Opportunities to recycle used motor oil and education about the potential environmental damage caused by improperly disposing of motor oil reduces water pollution.

Stream Team Volunteer Programs: Stream-side restoration projects done by volunteers give citizens direct, hands-on education about the habitat necessary to provide a healthy ecosystem for fish and other wildlife. Volunteers supplement professional services, assisting with salmon surveys and insect collections.

"Scoop the Poop" Messaging: Pet waste is raw sewage containing bacteria that can wash into local waterways. Educational outreach teaches citizens to scoop up pet waste, bag it, and put it in the garbage.

Watershed Outreach Campaign: A particular watershed is targeted with educational information on specific behaviors that the City would like practiced to prevent pollution, residents pledge to do certain behaviors and are sent a tool to aid in that behavior change, and response rates through pledges are tracked.

In the long term, the focus of many activities is on behavior change. This is done by increasing awareness and planting the seed of knowledge that will result in changing the public's behavior, through activities such as school workshops and the storm drain marker program that identifies the destination of water in a particular drain, raising public awareness to decrease pollution.

The programs anticipated by this proposal provide the basic service levels required to comply with the mandates of the City's NPDES Permit, the State's Water Pollution Control Law, and the Federal Clean Water Act, and recognize that continued compliance and success depends on keeping customers engaged and aware through constant and consistent messaging and information.

Factor 2: Water – Surface and Storm Water Management: Preventing pollutants from flowing into the City's waterways is critical to maintaining their health and is directly connected to the health of the local community and its economic viability. This proposal provides educational programs and materials to increase the community member's awareness of their choices and the consequences of those choices on local waterways.

Factor 3: Natural Environment – Healthy Lakes, Streams and Wetlands/Improve Wildlife Habitat: Preventing pollutants from flowing into the City's waterways supports a clean and healthy living environment in the City. Through Natural Yard Care programs, residents are taught to choose the right plants, and to build healthy soil, resulting in less need for garden chemicals and pesticides. This proposal provides education and technical assistance to businesses and homeowners to maintain critical areas and stream-side property, resulting in a cleaner living environment. Programs and materials are developed to enhance the community's awareness of the importance and value of the City's natural spaces, and how these spaces are all part of an integrated ecosystem. Stream Team volunteers do stream-side habitat restorations and fish and insect monitoring, and learn the importance of these indicators of waterway health.

Addressing Citywide purchasing strategies:

Best Value/Leveraging Partnerships. This proposal provides City customers excellent value for their rate

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

dollars. Many of the programs use volunteers or focus on teaching the public how to prevent surface water pollution, leveraging the public to “do it themselves” to prevent pollution of the City’s waterways. It also leverages partnerships with other cities and regional programs that reduce overall outreach costs. Staff works in partnerships with the Department of Ecology (NPDES Permit oversight), Local Hazardous Waste Management Program (granting agency), Bellevue School District (program partner), Points Communities (grant cooperation), “STORM” - Stormwater Outreach for Regional Municipalities (cooperative multi-jurisdictional surface water runoff educational program), “Puget Sound Starts Here” (cooperative public educational campaign), “SOGies” (East and North Lake Washington cities’ Stormwater Outreach Group), Glendale Golf Course (program partner), and other private stream-side Owners (program partners). Efficiency. Programs support pollution prevention rather than remediation. It is far less expensive to stop pollution at its source and to educate people to become pollution prevention partners, than it is to repair the damage done by pollutants. Increased Citizen Participation. Public volunteer opportunities include Salmon Watchers and stream restoration, and educational programs focused on increasing public awareness and changing behaviors to those that prevent pollution. Ensure Sound Management of Resources. All programs are either rate- or grant-funded, and are subject to review by the Council, Environmental Services Commission, and granting agency. Staff works closely with partners to leverage resources and outreach activities wherever possible. This proposal supports the work of proposal 140.64PA, Citywide NPDES Management, promoting the protection of water quality and uses of our lakes, streams, and wetlands.

If this proposal is not funded:

The City would fail to comply with its NPDES Permit, resulting in monetary fines to the City, and providing a foundation for third-party lawsuits. The City would also fail to comply with the requirements of the State’s Water Pollution Control Law and the Federal Clean Water Act. The City would not invest grant funds received, allowing funds collected from City customers to revert to the granting agency, and to be allocated to other jurisdictions. Extremely popular programs, such as Stream Team volunteering, storm drain marking, and on-site education and technical assistance would no longer be available to customers. The City would not be able to participate in regional planning and coordination efforts and not be able to advocate for City customers at the regional level. The City would fail to comply with the City’s Environmental Stewardship Initiative Strategic Plan calling for the preservation and renewal of our local waterways.

This proposal represents a reduction in service levels taken during the last budget cycle, and costs cannot be adjusted downward without reducing the quality of services provided. Funding at a lower level would slow or cause the City to fail to comply with federal, state, local, and City goals, and other mandates, which will have a negative impact on local water quality. Failure to expend allocated grant money would also result in the money reverting back to the granting agency, meaning that funds collected from City customers would not be spent in the City. The City would fail in its fiduciary duty of being a good steward of customer funds.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0015f	Utilities: Percent compliant with car wash kit requirements	62.5%	80%	80%	73%	100%	100%	100%
140.0018	Utilities: Public storm drain markings maintained per plan for calendar year	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue and anticipated Grant funding: 2015 - \$20,000; 2016 - \$20,000.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	2.63	2.63	Expenditures	195,593	199,354
LTE	0.00	0.00	Personnel	338,251	349,937
Total Count	2.63	2.63	Supporting Revenue	0	0
			Rev-Exp Balance	-533,844	-549,291

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Water Systems and Conservation	
Proposal Number:	140.32NA	Outcome: Healthy and Sustainable Environment
Parent Proposal:		Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.32NA	Budget Status: Recommended
Attachments:	0	Primary Staff: Susan Fife-Ferris, x5216

Section 2: Executive Summary

Conserving and promoting the efficient use of water resources to ensure an adequate supply of clean, safe drinking water into the future is critical to human health, the City's continued economic viability, and the sustainability of both the local and global environment. The City leverages resources by looking to the Cascade Water Alliance for primary water conservation and efficiency program delivery, and supplements Cascade's programs through local programs such as the Waterwise Garden, the Natural Yard Care programs, and the Powerful Choices for the Environment program to 6th graders, all of which promote the wise use of water and elimination of waste in order meet the City's water use efficiency goals.

Section 3: Responsiveness to Request For Results

Without an adequate clean, safe drinking water supply, neither the City's economic prosperity nor its high quality of life can be sustained into the future. In compliance with state requirements and under the City's agreement with Cascade Water Alliance (Cascade), Cascade set a six-year regional water use efficiency savings goal that covers 2014-2019, which the City, as a member of Cascade, will assist in achieving. Cascade's cumulative drinking water use efficiency goal is to save 0.6 million gallons per day (gpd) on an annual basis and 1.0 million gpd during peak season (June-September) by the end of 2019. The City's portion of this goal roughly translates to 228,000 gpd of savings on an annual basis and 380,000 gpd of savings during peak season by the end 2019. The City will look to Cascade for most water conservation and efficiency program delivery during the next budget cycle, with the City focusing on three primary programs: 1) The Waterwise Demonstration Garden, situated in the heart of the Bellevue Botanical Garden, which educates the community about natural yard care practices, including water use efficiency; 2) Natural Yard Care program, which includes displays, Fall workshops, and how-to resources promoting the wise use of water; and, 3) Powerful Choices for the Environment, a 2-day cooperative effort with the Bellevue School District that is integrated into the 6th grade science curriculum, which promotes a better understanding of where the City's water comes from, the value of it as a resource, why it is important to use it wisely, and how the drinking water system works with and within the surface water and waste water systems.

Conserving water can help customers control their utility costs. Many actions, such as using water wisely outdoors and taking shorter showers are free and easy to do. Reducing water use can also lower wastewater and energy costs. In the long-term, regional water supplies experience pressure due to population growth, climate change, and other factors. The more efficient use of water and water conservation stretches the current supply, delaying the need to develop additional water sources and infrastructure. By promoting the wise use of water, the City helps to ensure an adequate supply for environmental and economic development needs. With an understanding of where water comes from, how it's treated and delivered, and how important having clean, safe water is to our public health, economy, and quality of life, customers gain an appreciation for the value of the water that comes from their faucet. When customers value the resource, they are more likely to conserve and protect it and support rate increases needed to maintain water infrastructure for future generations.

Factor 2: Water – Reliable Delivery of Clean Water: This proposal takes a targeted approach to educating homeowners and school kids about the wise use of water and efficiency opportunities and activities, and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

promotes the value of water as a resource to the community through the Waterwise Demonstration Garden, Natural Yard Care programs, and Powerful Choices for the Environment program. Educational programs and materials are provided to enhance customer awareness of their choices and the consequences of those choices on drinking water resources. A proactive approach is taken through community collaboration and partnerships to use water resources wisely.

Factor 4: Built Environment – Reduction, Reuse, and Recycling of Resources: All three of the programs funding by this proposal encourage residents to reduce their use of water through efficiency practices and behavior changes. As an example, the nationally-recognized Waterwise Garden provides visitors a demonstration of best practices for planning, planting, and caring for landscapes to reduce the use of and protect water resources. The landscaping examples are used to educate and raise the awareness of the public, who can then apply those ideas to their own homes. Programs and materials, which are extremely popular with local residents, are developed to enhance community awareness of the importance and value of natural spaces around the City and how these spaces are all part of an integrated ecosystem.

Addressing Citywide purchasing strategies:

Best Value. City customers receive excellent value for their water rate dollars. Customers can reduce their water use, through water use efficiency and elimination of water waste which help them manage their utility costs. Reducing overall water usage by the community can mean delaying regional supply development, reducing operational costs, and keeping overall water rates down. **Efficiency.** It is far less expensive to educate people about the need to use less water and how to use water more efficiently than it is to develop new water sources and the accompanying infrastructure. **Leverage Collaboration.** The City collaborates with Cascade Water Alliance (Interlocal Agreement), Bellevue School District (program partner), Parks Department (program partner), and Bellevue Botanical Garden Society (program partner). **Catalyst for Increasing Citizen Participation and Support.** Public education programs increase participation in water efficiency activities. The Waterwise Garden increases interest and support of the conservation effort, and builds community enthusiasm. **Sound Management of Resources.** All programs are rate-funded, and are subject to review by the Council and the Environmental Services Commission. The City pays no additional money to participate in the Cascade water conservation and efficiency programs.

If this proposal was not funded:

The City would not meet ongoing obligations with program partners, including the Bellevue School District, Parks Department, and Bellevue Botanical Garden Society. The progress made towards meeting water use efficiency goals might be compromised, and the City might end up out of compliance with state law. The City would fail to comply with the City's Environmental Stewardship Initiative Strategic Plan calling for the conservation of drinking water resources.

This proposal represents minimal funding for City water use efficiency efforts. Funding at a lower level would result in the need to cut those minimal programs, and may result in the City failing to contribute to the progress towards complying with water use efficiency goals.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0342	Utilities: Percent completion of planned Powerful Choices curriculum for the calendar year				N/A	100%	100%	100%
140.0375	Utilities: Number of attendees for Fall Natural Yard Care Classes			140.00	262.00	160.00	160.00	160.00
140.0376	Utilities: Save 228,000 gpd of drinking water on an annual basis to meet Cascade cumulative drinking water use efficiency goal by the end of 2019				N/A	228,000	228,000	228,000
140.0377	Utilities: Save 380,000 gpd of drinking water during peak season on an annual basis to meet Cascade cumulative drinking water use efficiency goal by the end of 2019.				N/A	380,000	380,000	380,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.60	0.60	Expenditures	74,296	76,097
LTE	0.00	0.00	Personnel	81,515	84,303
Total Count	0.60	0.60	Supporting Revenue	0	0
			Rev-Exp Balance	-155,811	-160,400

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Customer Service and Billing		
Proposal Number:	140.33PA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:	N/A, 140.46DA; 140	Proposal Type:	Existing
Previous Proposal:	140.33PA	Budget Status:	Recommended
Attachments:		Primary Staff:	Virginia Barrett, x5368

Section 2: Executive Summary

Utilities Customer Service and Billing bills and manages 38,000 service connections for 130,000 customers in Bellevue and surrounding communities. Utilities bills for water, wastewater, and storm drainage services, services which are necessary to foster a healthy and sustainable environment. Services are entirely supported by ratepayers. The billings for approximately 36,000 residential and 2,000 commercial and multi-family accounts generate rate revenue of over \$119 million for Utilities and utility taxes of almost \$8 million for the General Fund.

Section 3: Responsiveness to Request For Results

Bellevue Utilities serves residents within the City and in several neighboring communities. In this proposal, Customer Service/Billing staff provides timely and accurate billing of residential, commercial, and multi-family customers for water, wastewater, and storm drainage services. The revenues collected are used to operate, maintain, and replace the complex water, wastewater, and stormwater systems that provide service to utility customers. Services included in this proposal are billing, customer care/account management, and collections.

Billing – Accounts are grouped into 8 billing cycles based on water meter reading routes. Each week, the Customer Information System (CIS) produces approximately 5,000 bills based on meter reads. Accuracy is essential; the 5,000 bills are allocated among 4.6 Customer Service Representatives (CSRs) who manually review the bills for exceptions and meter mis-reads prior to releasing them. Commercial and Multi-Family accounts typically have large, and/or multiple meters and consequently much higher volumes. These bills require extra scrutiny before release to the customer. The performance measure for billing errors measures how well CSRs are doing in their pre-billing activities.

Customer Service/Account Management - Customer Service is more than a call center. While CSRs are the first point of contact for our 38,000 customers who reach out to us over the phone, they are responsible for many more areas of customer and account care. Other responsibilities include:

- Documenting customer accounts with a recap of each customer call
 - Researching and documenting account adjustments
 - Creating new accounts, taking move in/out information, calculating final bills for outgoing customers
 - Providing technical support for customers who need assistance with online or phone payment systems
 - Coordinating with field staff regarding meter reads, service disconnects and other customer issues
 - Assisting delinquent customers with payment arrangements or referrals to social service agencies
 - Processing delinquent accounts for collections and following up on customers who have left the area
- CSRs receive 150 (total number) calls per day, process up to 50 moves per day, make up to 50 reminder (late payers) calls per week, produce an average of 140 notices of pending disconnect per week, and coordinate an average of 20 service disconnect/reconnects per week. CSRs must also work with distraught or difficult customers while still acting in the City's best interest to collect money owed for services provided. The customer survey performance measure captures the customer perception of how well CSRs are performing these tasks.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Collections – Collections are critical to maintaining cash flow. CSRs must follow very specific procedures in order to meet legal requirements for collections. Failure to adhere to the prescribed collections process means the utility loses the legal ability to collect when a customer defaults. Creating pending disconnect notices, and lists of accounts for service disconnect is time-consuming and the information must be accurate.

Cause and Effect Factor 2: Water

A clean, reliable, and safe supply of drinking water, the removal and treatment of wastewater and management of stormwater is essential to the health and well-being of Bellevue residents and consequently, a healthy and sustainable environment.

The reliable supply and conveyance of water is dependent on our ability to purchase water and transport it to customers. Revenues generated by billing and collection activity pay for the infrastructure necessary to accomplish both the purchase and the transport. The infrastructure that minimizes damage from stormwater and supports a healthy environment for fish and wildlife is paid for by revenues generated by utility billing and collections. Revenues generated by billing also pay for safe, efficient removal and treatment of wastewater, and the maintenance of infrastructure right-sized for current and future needs. Through their daily front-line contact, CSRs educate customers on a wide range of conservation issues and services. For example, a CSR might identify that a customer has high water consumption and provide information on how to troubleshoot for leaks and suggest measures to take for water conservation. Utilities also advises/educates managers of accounts for City facilities on the efficient use of water resources and alerts them if consumption looks high so they can investigate possible leaks as quickly as possible in order to be the best possible stewards of those resources. CSRs also educate residents about storm and surface water issues. Residents are often not aware that the City has a City-wide storm drainage management system and that there are federal mandates and regulations for runoff control. Customer education about wastewater management consists importantly of telling residents what does NOT go into the sewer system (wipes, grease, etc.) and how to safely dispose of hazardous materials.

Outcome Purchasing Strategies

This proposal has a direct relationship with the outcome and factors specified in the cause and effect map for a Healthy and Sustainable Environment. Water, Natural Environment, and Built Environment all rely on infrastructure and services provided by Utilities. Accurate and timely billings and collections assure that the necessary funds are available for infrastructure build-out/maintenance, personnel, and service delivery. Utility services are entirely supported by rates, which are collected by billing. Utilities delivers results in an environmentally sensitive and sustainable way by providing electronic alternatives. Customers can receive their bills via e-mail and pay online or over the phone, which saves paper. We encourage customers to use ebills and have seen a sizable increase in the number of customers who choose this option. 15% of our customers are now getting their bills electronically. This “green” alternative is also a cost savings for the City- we are currently realizing savings of \$16,500 per year by sending ebills rather than mailing printed bills. We also offer electronic ways to make payments and are actively seeking to expand electronic payment alternatives. Utilities Billing and Customer Service is actively undergoing a comprehensive process improvement and workload analysis effort. The result of this effort will be realized in 2014 when we take a couple of identified billing processes and re-engineer them with an eye to more efficient operations. Services are provided through community partnerships by collaborating with social service agencies such as Life Spring and Hopelink to get assistance for customers having trouble paying their utility bills.

Citywide Purchasing Strategies

Utility Billing is constantly examining processes and services to ensure that we provide the best value to the citizens. We have outsourced both bill print/ mailing and lockbox payment processing because it is inefficient and expensive to have these services provided in-house. As part of the 2013-2014 budget process, 1.7 FTE was redeployed from Customer Service and Billing to other areas within Utilities. The duties of .7 FTE were absorbed by another work group within the department. However, 1.0 FTE was absorbed by remaining

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Customer Service staff. While customer service levels have remained high, some paperwork is backlogged; we do not recommend any further scaling. We continue to look for efficiencies and cost effective ways to deliver desired services to our customers. In 2014, we are examining efficient ways of offering even more alternatives for customer bill presentment, including a possible “mobile app” option. Customer bill inserts encourage residents to be proactive in monitoring and conserving their resources. Inserts also educate customers about the importance of the City-wide storm drainage system in the preservation and creation of natural habitats within Bellevue. This proposal leverages collaboration with other City departments. Service First, Mini City Hall, and Utilities Operations and Maintenance staff are all partners in providing our services. Parks, Civic Services, PCD, and Transportation are all our customers. We work with them proactively to ensure the optimal use of City resources and to avoid water waste. We also work with other departments who want to use utility bills to disseminate information or announcements to the public. Using utility bills, they can easily reach all residents and businesses.

Other Outcomes: Responsive Government – Two of the factors under Responsive Government are Customer Focused Service and Stewards of the Public Trust.

Utility billing and Customer Service are customer facing services; we are often the only direct contact a citizen will have with the City. The image that the public has of the City may be entirely based on their interaction with Utility Billing- we have to faithfully represent the City’s philosophy regarding all residents. We are proactive in our customer focus. High consumption notices are left at single-family residences if metered usage looks abnormally high. This enables the customer to check his property/home for any malfunctions in his water system, rather than waiting for a high bill to arrive two weeks later. That we are stewards of the public trust is demonstrated by the careful way that we spend ratepayer money in delivering services to the public in the most fiscally responsible manner, both in the short term and the long term. We are entirely supported by rates; when talking to a customer who may be complaining about rates, we need to be able to explain concretely how we are spending their money wisely.

The billing activities in this proposal generate the revenue for operating and CIP expense in all utility proposals. It is important that we monitor billing and collections so this revenue is available and coming in predictably according to forecast targets.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0024f	Utilities: Customer Billing error percentage	N/A	0.58%	0.8%	1%	3%	3%	3%
140.0027f	Utilities: Customer satisfaction survey (weekly Customer Service & Billing)	N/A	N/A	N/A	93%	80%	80%	80%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	8.30	8.30
LTE	0.00	0.00
Total Count	8.30	8.30

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	366,931	378,574
Personnel	816,147	845,896
Supporting Revenue	0	0
Rev-Exp Balance	-1,183,078	-1,224,470

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utility Taxes and Franchise Fees	
Proposal Number:	140.34NA	Outcome: Healthy and Sustainable Environment
Parent Proposal:		Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.34NA	Budget Status: Recommended
Attachments:	0	Primary Staff: Martin Chaw, x7199

Section 2: Executive Summary

Bellevue Utilities is required to pay State Utility and Business and Occupation (B&O) taxes (RCW 82.04.220 and 82.16.020), City of Bellevue Utility Taxes (BCC 4.10.025), and a franchise fee to neighboring communities that have a franchise agreement with the City to provide water and wastewater services in their jurisdiction. These payments are required by State and Local laws and binding agreements with neighboring jurisdictions. These taxes and fees are passed through directly to utility rate payers and included in their bi-monthly utility bills.

Section 3: Responsiveness to Request For Results

The payment of state taxes, City taxes, and franchise obligations is entirely supported by utility rates and charges. Money to pay for City taxes is collected from customers within Bellevue's city limits except that, starting in 2012, the City tax on water service has been extended to all customers as part of an agreement with other jurisdictions to collect monies to pay for fireflow capacity costs from water customers via the city tax (see also Proposal #140.59NA). Money to pay for franchise fees is collected from customers in the pertinent jurisdictions.

Taxes

The Utilities Department is required to pay taxes on its business activities to both the State of Washington and the City's General Fund. Services included in this proposal are monthly State and City tax remittance and quarterly Franchise Fee remittance.

The State collects excise taxes in the form of the public utility tax on the Utilities' sewer collection and water distribution activities, and a business & occupation tax on the remaining Utility business activities. These costs are included in utility rates and recovered from customers in their bi-monthly bills. The City's General Fund imposes a utility tax on the Sewer and Storm Drainage utilities based on service revenues from all water system customers within City limits and on the Water utility based on service revenues from all water system customers. The City passes these costs directly through to customers in their bi-monthly bills.

Franchise Fees

The towns of Clyde Hill, Hunts Point, Yarrow Point and the City of Medina have franchise agreements with the City of Bellevue that allow Bellevue to operate water and wastewater utilities in their jurisdictions. In those agreements, the City of Bellevue agrees to pay franchise fees, which are set by the city or town, equal to a percentage of the gross amount of the customer's bi-monthly water and sewer bills. The City of Bellevue passes these charges directly through to customers in their bi-monthly bills.

This proposal is not scalable. Utilities must pay 100% of taxes and franchise fees as outlined by the following mandates and contractual agreements:

- RCWs 82.16.020 and 82.04.220 govern State taxes
- Bellevue City Code 4.10.025 (established with Ordinance #4841) governs the City utility tax
- Separate interlocal agreements with the towns of Yarrow Point, Clyde Hill, and Hunts Point and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

the City of Medina specify that franchise fees must be paid based on rates established in each agreement or as amended by the jurisdiction.

State tax rates and deadlines for filing are established by the State and are not subject to negotiation. Franchise fee terms and conditions were set at the time the franchise agreements were negotiated and allow the franchising agency to set the rate; if changed, Utilities obtains approval from Council to adjust the factor applied to rates for customers in that jurisdiction to offset the increase or decrease in cost to the City. If payments were not made to these jurisdictions, the possibility also exists for interruption of utility services for ratepayers in those areas, which would endanger the City's healthy and sustainable environment. Again, these terms are not negotiable. Utilities is also obligated to pay City tax in its entirety.

If tax payments are not made to the State in a full and timely manner, the City would be in violation of its obligations and potentially subject to legal action. If franchise fee payments are not made to the applicable jurisdictions in a full and timely manner, the City would be in violation of its franchise fee agreements and potentially subject to legal action. If payments are not made to the City in a full and timely manner, Utilities would be in violation of City code and the City could potentially have cash flow issues relating to the default. Any of these circumstances could also adversely affect the City's bond ratings.

This proposal provides a relatively stable source of revenues to the City's General Fund (City utility taxes), which reduces the need for tax revenues in both the short- and long-term. The Water utility tax provides revenues to the City's General Fund that it uses to pay its Fireflow Capacity Cost obligation (see Proposal #140.59NA).

Meeting our tax and contractual obligations allows Utilities businesses to continue operating free of lawsuits and/or other legal proceedings which could divert resources away from core Utilities activities, impairing the City's ability to provide clean drinking water, safe wastewater disposal, solid waste collection, and protection from stormwater damage. Franchise agreements with the "Points Communities" allow us to provide service in areas adjacent to the City, thereby creating regional efficiencies, avoiding the need for duplicative facilities, and reducing rates by spreading fixed costs over a larger customer base.

Service provided in this proposal addresses the following factor in the Healthy and Sustainable Environment outcome:

- **WATER:** Reliable delivery of clean water. This proposal addresses necessary costs associated with the provision of drinking water, storm and surface water, and wastewater services to customers.

Citywide purchasing strategies addressed by this proposal:

- Provide the best value in meeting community needs. This proposal allows the City to operate its utilities outside City limits, which reduces rates to all customers by allowing us to spread fixed costs (e.g., administration) over a broader customer base.
- Leverage collaborative partnerships with other organizations. Under the terms of the franchise agreements, Bellevue provides utilities services in other jurisdictions. By partnering with other jurisdictions, we eliminate the need for duplicative public utility facilities such as reservoirs and pump stations, thereby minimizing costs to all ratepayers and lowering the cost for all citizens.
- Ensure sound management of resources and business practices. This proposal allows for the payment of state taxes and franchise fees as established by state law and/or contractual arrangement.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	<u>2016</u> <u>Target</u>
140.0352	Utilities: Percentage of Utility Tax & Franchise Fee payments made by applicable due date				N/A	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Utility taxes are paid as a fixed percentage of projected rate revenue, and therefore may increase or decrease at a different rate than inflation.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.00	0.00	Expenditures	11,700,724	12,220,502
LTE	0.00	0.00	Personnel	0	0
Total Count	0.00	0.00	Supporting Revenue	0	0
			Rev-Exp Balance	-11,700,724	-12,220,502

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Cascade Regional Capital Facility Charges		
Proposal Number:	140.37NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.37NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Scott Pickard, x4587

Section 2: Executive Summary

The City's wholesale water supplier, Cascade Water Alliance (CWA), establishes rates to cover the cost of providing water to its members. Bellevue is a member of the CWA. One component of these rates is a fee assessed on each new connection for the equitable recovery of growth-related costs pertaining to Cascade's water supply system. The City has a policy of ensuring that "growth pays for growth" (City Comprehensive Financial Management Policies 10.1.III.A). Under this policy it is the responsibility of the party seeking Utility service to make and pay for any extensions and/or upgrades to the Utility systems that are needed to provide service to their property; Bellevue Utilities passes these charges directly through to customers connecting to the water system.

Section 3: Responsiveness to Request For Results

This activity is 100% supported by direct charges assessed to new connections and redevelopments/upgrades to water services.

This proposal covers the remittance of the Regional Capital Facility Charge (RCFC) to Cascade. The City is a member of Cascade, which is a regional water supplier to its eight members. Cascade develops, owns, maintains, and operates water quality facilities and contracts with water suppliers to purchase and provide water supply, transmission, and other related services. Cascade is also developing its own source of water supply. To allocate growth costs to those Members that require capacity increases, each member of Cascade is required to pay to Cascade a Regional Capital Facility Charge (RCFC) for each new Customer Equivalent Residential Unit (CERU) connected to their water distribution system. Based on City policy, the RCFC is collected from the customer(s) that are connecting to the system and the fee is remitted to Cascade.

This proposal is not scalable. Neither the price per CERU or the determination of units per meter type are under Bellevue Utilities' direct control. RCFCs are collected and paid as outlined by the following mandates and contractual agreements:

- Bellevue City Code 24.02.065 Duty to serve. The utility is responsible for providing water service to all customers within the utility service area subject to these code requirements, other provisions of the Bellevue City Code and applicable state law.
- Interlocal Contract, Cascade Water Alliance, December 15, 2004. The Interlocal agreement with Cascade requires the City of Bellevue to pay a Regional Capital Facility Charge for each new CERU connected to their water distribution system.

Cascade's RCFC charges to the City, in combination with the City's policy of directly passing through these charges to new and redeveloping customers, is an efficient means of ensuring that these customers pay their fair share of costs for the capacity to serve them (in other words, so that "growth pays for growth").

This proposal supports a part of Cascade's rate structure that is a key element in its short- and long-term financial plans. These plans benefit the City by requiring other jurisdictions, where the majority of long-term

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

growth is projected to occur, to pay a greater portion of the long-term cost of providing capacity to serve new growth.

A healthy and sustainable environment requires that citizens are able to connect to a clean, safe water supply. By allowing connection to the existing water distribution system, development and growth is accommodated in a sustainable way without adversely affecting the health of the environment. The RCFC ensures that new customers pay their fair share of the cost of existing resources that provide the capacity to serve them (i.e., “growth pays for growth”).

If this proposal is not funded, new customers would not be able to connect to the existing water distribution system in order to obtain needed water. This would require customers to try and obtain water rights and acquire their needed water through the diversion of surface water and/or ground water, potentially impacting existing water flows and the environment. In addition, not funding this proposal would mean forgoing the revenue received from RCFC charges to connecting/redeveloping customers. There would be no direct rate impact associated with not funding this proposal. In the long-term, however, water and sewer rates would be higher since the City would not add new customers, who – if connected – would help reduce rates to all customers by allowing the utility to spread fixed costs over a broader customer base.

If this proposal is funded at a lower level, the City would need to limit the number of new customers connecting to the system, inhibiting growth and economic expansion. Revenues from customers, which completely offset these connection costs, would be reduced.

Service provided in this proposal addresses the following factor in the Healthy and Sustainable Environment outcome:

- **Water: Reliable delivery of clean water.** This proposal provides funding that enables Cascade to continue providing a reliable water supply.

Other factors addressed by this proposal:

- **Economic Growth & Competitiveness: Land, Infrastructure and Planning.** All customers wishing to connect to the water distribution system are allowed to do so, with the payment of the appropriate RCFC. This allows for the continued development and growth of the community.
- **Responsive Government: Customer-Focused Service.** The funding mechanism inherent in this proposal aligns rates and resources; enables Cascade and the City of Bellevue to achieve organizational objectives of requiring growth to pay for growth; and allows both entities to adapt to changing circumstances and community needs by adjusting the pass-through charge as the costs of adding new capacity change.
- **Responsive Government: Stewards of the Public Trust.** Utilities ensures that the City complies with contract and regulatory requirements (the interlocal contract).

Citywide purchasing strategies addressed by this proposal:

- **Provide the best value in meeting community needs.** This proposal supports a cost recovery mechanism that provides funding for Cascade. Without this proposal – and the corresponding charge to new customers, which provides offsetting revenues – rates to existing customers would need to be increased to cover the revenue shortfall.
- **Provide for gains in efficiency and/or cost savings.** The funding mechanism inherent in this proposal ensures an efficient means of recovering costs associated with growth to customers causing

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

those costs to be incurred.

- Ensure sound management of resources and business practices. The funding mechanism inherent in this proposal is consistent with best practices in the utility industry, specifically, criteria for sound rate design that require rates to be based on cost of service (whereby “cost causers are cost payers”).

External: Cascade Water Alliance (Cascade). Members include the Cities of Bellevue, Issaquah, Kirkland, Redmond, and Tukwila, and the Covington, Sammamish Plateau, and Skyway Water/Water and Sewer Districts.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0354	Utilities: Percent of Monthly Regional Capital Facility Charge (RCFC) reports submitted by due date				100%	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Costs for 2015-2016 are anticipated to be greater than 2013-2014 due to a projected increase in development activity and corresponding increase in association dues (RCFCs).

2015 increase: \$990k, 2016 increase: \$962k.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

This proposal is fully funded through connection fees charged to Utility rate payers

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.00	0.00	Expenditures	2,000,000	2,000,000
LTE	0.00	0.00	Personnel	0	0
Total Count	0.00	0.00	Supporting Revenue	2,000,000	2,000,000
			Rev-Exp Balance	0	0

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Department Management and Support		
Proposal Number:	140.42NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.42NA	Budget Status:	Recommended
Attachments:		Primary Staff:	Lucy Liu, x4445

Section 2: Executive Summary

Utilities is a self-supporting enterprise operating within the City of Bellevue, dedicated to actively supporting public health and safety, the environment, a sustainable economy, and neighborhood livability now and into the future. It does so by effectively and efficiently managing four distinct business lines (drinking water, wastewater, storm and surface water systems, and solid waste collection), with an annual operating budget of \$130M, capital budget of \$194M (2013-2019), and 168 staff. Because of the long lives of utility systems, Utilities planning horizon extends 75 years. With its diverse service portfolio, this large and complex department requires strong leadership, strategic vision, clear guidance, and thoughtful management.

Section 3: Responsiveness to Request For Results

Staffing included in this proposal are: Department Director, Deputy Director, Senior Administrative Assistant, and staff to lead department-wide innovation and process improvement initiatives.

The Director and Deputy Director provide direction, leadership, and oversight to the Utilities Department and facilitate the development of strategy and policy in collaboration with the City Manager's Office and other City departments. They ensure that the City's mission, core values, and Council direction are incorporated into Utilities' operational activities and services. The Director represents the City in the community, the region, and nationally with regard to policy and operational initiatives and serves as a member of the City's senior leadership team. The Director and Deputy Director work closely with Utilities Assistant Directors to:

Provide strategic and policy direction in operations and maintenance, engineering, and financial management; manage the day to day administration of the Department, including the budget, personnel, labor relations and customer requests; oversee the preparation and update of short- and long-range strategic plans to ensure Utilities' contribution to the City's overall plans and strategies; oversee the preparation of short- and long-range financial forecasts; and direct ongoing research into new technologies and trends. Recruit and retain qualified personnel at all departmental levels, and establish and maintain a working environment conducive to positive morale, individual style, quality, creativity, and teamwork. Present Utilities' issues and recommendations on major issues requiring policy direction to appropriate advisory bodies and to the City Council; coordinate Utilities' activities with those of other City departments and offices to ensure a consistent approach on common projects and interests; represent the City on critical utility and environmental issues, such as water supply governance; serve as members of senior management on task forces and committees participating in the City's strategic planning efforts; and address City-wide policy and management issues. Ensure Utilities practices and procedures meet or exceed industry best practices (e.g., American Public Works Association accreditation and Association of Metropolitan Water Agencies Platinum Award for Utilities Excellence). Lead department-wide initiatives related to innovation, process improvement, strategy development, workforce development and optimization, and corporate communication.

State law and Bellevue City Code and policies govern management of utilities operations. BCC 3.41.010 establishes the functions of the Utilities department, including operations and maintenance of the water, sanitary sewer, and storm and surface water utilities, utilities administration and regulations, and the city's solid waste and recycling collection.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

As a result of both short- and long-term strategic planning and a focus on service, customers continue to express high satisfaction with Utilities' services. Council-adopted financial policies direct Utilities to proactively set aside funds to replace the City's utility infrastructure as it ages, thereby avoiding the need for large rate spikes and ensuring that each generation pays its fair share of replacing the system. This not only provides good value to utility customers, it also attracts residents and businesses interested in relocating to Bellevue.

Short- and Long-term Benefits of This Proposal

The Director's Office provides Utilities with direction for the future, making strategic decisions and resource allocations for the short- and long-term benefit of Utilities customers and the organization; identifies opportunities to partner and collaborate with other governments, organizations and stakeholders to provide services to the community; leverages efficiencies and opportunities to improve processes; ensures the workforce is well trained and equipped to support the provision of quality service; delivers efficient and effective services to customers in a timely and predictable way; takes responsibility for measuring results; and, manages assets to ensure continuity of service and financial sustainability.

Why the Level of Service Being Proposed is Appropriate

Utilities is the third largest department in the City. Resources included in this proposal ensure utility customers continue to receive the level of service they currently enjoy. Competitive utilities rates, high customer satisfaction ratings, and a strong financial position all speak to the quality of current department leadership. Strong leadership provides Utilities with a clear vision and the guidance necessary to provide the services customers expect for their rate dollars, and helps to ensure that services are provided in a cost-effective and efficient manner that promotes environmental stewardship and places an emphasis on proactive as opposed to reactive actions.

Outcome Specific Factors and Purchasing Strategies Address by This Proposal

Healthy and Sustainable Environment

Factor 1 and Outcome Specific Purchasing Strategy: Air. The Director's Office works with internal and external stakeholders to develop the policies and vision necessary to promote reduction of greenhouse gas emissions through waste reduction and recycling activities which result in lower energy usage. Factor 2 and Outcome Specific Purchasing Strategy: Water. The Director's Office works with internal and external stakeholders to develop and implement a vision to ensure the City's water resources are effectively and efficiently managed to meet the needs of customers and the environment. The Director's Office provides the leadership and guidance necessary to ensure that a safe and reliable supply of drinking water flows to and sewage is removed from homes and businesses, storm and surface water runoff is controlled to minimize negative impacts, such as erosion and flooding, and surface water quality and quantity are adequate to provide a suitable environment for plants and wildlife and to meet community recreational needs. Factor 3 and Outcome Specific Purchasing Strategy: Natural Environment. The Director's Office provides the leadership necessary to ensure that policies and strategies are in place to improve, preserve, and restore natural environments and habitat through surface water protection and conservation programs such as the Stream Team and Natural Yard Care programs. The Director's Office works with internal and external stakeholders to develop the policies and vision necessary to promote nature space. Factor 4 and Outcome Specific Purchasing Strategy: Built Environment. The Director's Office oversees the development and implementation of the policies that help to keep our community clean through the management of the solid waste collection contract with Republic Services, and implementation of waste prevention and recycling programs. The Director's Office works with internal and external stakeholders to develop the policies and vision necessary to promote waste prevention and recycling programs.

Economic Growth and Competiveness: Land, Infrastructure and Planning; Innovative, Vibrant, and Caring Community: Support Services; Safe Community: Planning and Preparation; Responsive Government: Strategic Leadership, High-Performing Workforce, Customer-Focused Service, Stewardship of the Public Trust.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

The Director's Office provides the vision and strategic leadership to ensure:

Consistent policies and exceptional customer service that encourage business growth and help make Bellevue an attractive place to do business; A reliable utilities infrastructure is available to support existing and future businesses; Affordable access to basic utility services for Bellevue's low-income senior and disable citizens; Development and implementation of an extensive Emergency Response Plan helps the City address the situation and return to normal operations as quickly as possible after an event; Open, honest, and accountable business practices that enhance connection with the community; Strategic leadership and customer-driven excellence as the cornerstones of a high performing organization; Workforce development and succession planning to ensure exceptional service and engaged employees; Stewardship of the public trust through long-term planning that ensures financial sustainability, quality infrastructure, minimized life-cycle costs, and intergenerational equity.

Citywide Purchasing Strategies Addressed by This Proposal

Best Value. By providing proactive leadership, short- and long-term strategic planning, and clear direction on how to achieve the Utilities mission, the community receives more effective and efficient utilities operations and services that meet their needs. This includes strategic deployment of staffing resources to deliver the highest value to utility customers. **Efficiency Gains.** By focusing on continuous process improvement functions that yield efficiency gains. **Leverage Collaboration/Partnerships.** The Director's Office maintains professional contacts with organizations throughout the nation, sharing ideas and strategies to ensure that Utilities implements best management practices department-wide. Additionally, the Director's Office collaborates with the following internal and external partners to ensure effective and efficient service delivery:

Internal: Leadership Team (participant); City Manager's Office (coordination; liaison); City Council (liaison);

Environmental Services Commission (policy guidance and rate review); Environmental Stewardship Initiative (coordination)

External: Cascade Water Alliance; King County Solid Waste Division; King County Metro; Department of Ecology. Sound Resource Management. Careful oversight of operations and capital projects, and consistent application of Utilities' financial policies contribute to maintaining competitive utility rates.

Consequence of Not Funding the Proposal At All

Utilities would not comply with the City code or policies and state and federal laws governing water resource management. The City would fail to have clear leadership of the Utilities Department, resulting in ineffective and inefficient services, which ultimately would result in rate increases that negatively impact City ratepayers. Utilities would fail to engage internal and external stakeholders in the development and implementation of its vision and strategic plan.

Consequence of Funding at a Lower Level

Utilities has a large and diverse portfolio of services. Its services are immediate (24/7) and exceptionally long-range (75 to 100 years). Funding at a lower level would slow or cause the City to fail to comply with the City code, and make it more difficult to actively engage internal and external stakeholders. Without a vision that can be clearly articulated to the department-at-large, Utilities' operations and services would suffer, becoming less effective and efficient.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0056	Utilities: Employee job engagement score (Annual City Employee Survey)	N/A	N/A	3.45	3.6	3.6	3.6	3.6
140.0120	Utilities: Maintain a minimum Aa2 Bond Rating	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140.0306	Utilities: Utilities Services customer satisfaction survey - (Citywide citizen survey)	90%	95%	93%	91%	85%	85%	85%
140.0417	Utilities: Is the Bellevue Utilities Department an Accredited Agency?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140.0418	Utilities: Percentage of Utilities customers rating Bellevue Utilities Department services as good value for the money.	76%	95%	83%	87%	90%	90%	90%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Centralization of \$38K in 2015 and \$39K in 2016 for process improvement functions.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	4.00	4.00	Expenditures	95,179	94,992
LTE	0.00	0.00	Personnel	622,553	643,513
Total Count	4.00	4.00	Supporting Revenue	0	0
			Rev-Exp Balance	-717,732	-738,505

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utility Locates Program		
Proposal Number:	140.44NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.44NA	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Kipp Fockler x 2923

Section 2: Executive Summary

This proposal provides resources for Utilities to protect underground City owned and operated utility infrastructure. The Utility Locate program safeguards approximately 1675 miles of City owned underground utility pipelines for the delivery of drinking water and conveyance of surface runoff and sewer pipes by accurately marking utility locations prior to construction excavation in support of development, CIP and franchise utility renewal and repair.

Section 3: Responsiveness to Request For Results

Locators are required by Washington State law to mark underground City owned utilities

Responsibilities include:

Responding to excavation notices during normal business hours and after-hours for emergency locates.

Locators work closely with the contractors to assure the locate markings are done within the 48-hour time requirement. Maintaining records, including site sketches, and performing as-built corrections. Attending pre-construction meetings and site meetings with contractors and inspectors on large excavation projects.

Responding to emergency and callout situations 24 hours a day, 365 days a year.

Mandates and Contractual Agreements:

RCW 19.122.010 – Assigns responsibilities for locating and keeping accurate records of utility locations. Locates must be marked within two business days after the call. RCW 19.122.030 – Notice of excavation to owners of underground facilities to mark their underground utility within 48 hours of notice to dig.

Efficiencies/Innovations:

Since early 2012, with the implementation of the Irthnet Software system, the locators are using mobile tablets to retrieve ticket requests. This has resulted in additional time savings and efficiencies by allowing the tickets to be delivered to each locator by area which eliminates manual sorting. Tickets are not only managed geographically but by priority, too. Other benefits include paperless filing, a permanent electronic log history, a customer call back system, and the ability to retrieve tickets out in the field instead of coming back to the office. Vehicles in support of the locate program have also been replaced with Hybrid SUVs thereby reducing the carbon foot print.

Short- and long-term benefits of this proposal:

Short term: (1) Safeguards citizens and construction personnel working around utilities; (2) protects the underground infrastructure from damage that could disrupt utility services and threaten public health, safety and environment; and (3) limits City liability for property damage and revenue loss due to service interruptions to businesses.

Long term: (1) Maintains City compliance with RCW 19.122; (2) reduces the carbon footprint associated with vehicle trips through consolidated locates; and (3) reduces ultimate cost of service to customers by reducing damage to systems and resulting claims.

Describe why the level of service being proposed is the appropriate level:

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

This proposal reflects efficiencies described in Section 4 under “Cost Savings/Innovation.” The service cannot be scaled down further because of the response times mandated by RCW 19.122. When workload demands are heavy, the locators will assist each other to make sure all time mandates are met no matter the geographical district they are assigned to. At times this requires regular maintenance field crews to help. Time not spent directly in the field marking locates is spent on the tasks listed in Section 5.

While the service must meet RCW requirements, another service delivery option would be outsourcing. Outsourcing is not recommended because contract locators:

- Are not familiar with the utility infrastructure and systems and there would be an increase in damages and customer claims due to more locate errors.
- Would increase the risk of environmental damage due to inexperience with the sensitive lakeshore and sewer lake lines.

Staff included in this proposal also have key roles in responding to disasters and major emergency events. Having in-house staff performing the work in this proposal maintains 24/7 availability of a skilled and trained workforce with technical system knowledge, experience and incident command system (ICS) training. Possible events include extreme rain/flooding, snow/ice events, windstorms, earthquakes, as well as other unforeseen disasters.

Factors in the Healthy and Sustainable Environment outcome:

- Factor 2: Clean Reliable Water. Accurate and timely marking of water pipes before excavation work prevents accidental damage to the water system. When contractors cause breaches, water damages the work site and must be shut off for repairs, disrupting service to businesses and residences.
- Factor 3: Clean Green City. Usually work is in the rights-of way creating dusty streets. Accurate and clear markings prevent the contractor from digging up additional roadway searching for pipe.
- Factor 4: Natural Environment. By providing accurate and clear markings, accidental damage to underground pipes is kept to a minimum. If damage occurs, it can flood homes, businesses and streets with water or sewage and disrupt water service. Sewer lake line locates are especially critical in preventing breaches that would send raw sewage into Lake Washington or Lake Sammamish and damages to Storm Facilities might not be known until a storm occurs.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

- Outcome Strategy 2: Ensure the safe and reliable supply of water and removal of wastewater from homes and businesses.
- Outcome Strategy 3: Keep properties, streets and open spaces clean and free of waste, debris, and toxins.
- Outcome Strategy 4: Conserve and protect valued natural resources through preservation, restoration and efficient use. Accurate and timely response to locate requests prevents accidental dig ups of utility pipes which can result in sewer backup and contamination of lakes/beaches.

Other factors addressed in this proposal:

- Economic Growth & Competiveness, Factor 2: Cost & Capital. The volume of locate requests closely mirrors the rate of new construction and redevelopment. Timely response to contractor requests for locates

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

help meet construction schedules and decreases costs for developers and contractors.

- Improved Mobility, Factor 2: Traffic Flow. When a contractor is working in the right-of-way, traffic movement is temporarily impacted. Accidental damage to the piped utilities results in extended traffic disruptions while damage is mitigated and repairs completed.
- Safe Community, Factor 1: Prevention. Accurate markings prevent accidental damage to underground pipes which can cause flooding, sewer contamination, and loss of water service to customers

Citywide purchasing strategies addressed:

- Best Value, Gains in Efficiency, Best Practices, Promote Environmental Stewardship, and Sound Management of Resources and Business Practices

Following the Six Sigma project recommendations, changes to business processes yielded staffing efficiencies while continuing to meet RCW requirements and customer demand. The mobile laptops/software used by other Utilities (best practice) also have provided additional efficiencies by allowing the locators remotely access utility system data from the field.

Consequence of not funding the proposal at all

1. Legal Risks: Level of service is mandated by RCW 19.122 which states that all regular locate requests be performed within two business days after the receipt of the notices or before the excavation time, unless otherwise agreed by the parties. All emergency requests must be completed as soon as possible.
 2. Citizen/Contractor/Business Impacts: Contractors working on new development, renovation, and maintenance projects are immediately impacted if this proposal is not funded as excavation work in the right of way is halted when piped utilities are not located. Mis-locates can cause damage to piped utilities with negative impacts to traffic mobility, service interruption for businesses and residences, sewage spills, and pollution impacts to lakes, streams, and beaches.
 3. Other: Environmental Damage and Claims: If late or erroneous locates result in utility system damage and excessive water, sewer, or storm water discharges, the City would be at greater risk of claims for property damage and environmental impacts, and could be fined by the Department of Ecology.
- Consequence of funding at a lower level: Similar to those described above. Rate impacts/increases resulting from an increase in system damage, liability claims, and fines for non-compliance.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0248f	Utilities: Percent of locates performed within mandated deadlines	100%	100%	100%	100%	100%	100%	100%
140.0251	Utilities: Number of claims paid due to mis-locates	0	0	0	0	0	0	0
140.0252	Utilities: Number of damaged assets due to mis-locates	5	4	3	3	0	0	0
140.0253	Utilities: Number of locates received	13,197	14,100	18,315	24,177	28,000	30,000	32,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	2.65	2.65	Expenditures	36,760	34,700
LTE	0.00	0.00	Personnel	266,511	276,346
Total Count	2.65	2.65	Supporting Revenue	0	0
			Rev-Exp Balance	-303,271	-311,046

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utility Water Meter Reading	
Proposal Number:	140.45DA	Outcome: Healthy and Sustainable Environment
Parent Proposal:	140.33PA,N/A	Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.45DA	Budget Status: Recommended
Attachments:	0	Primary Staff: Kipp Fockler, x2923

Section 2: Executive Summary

This proposal provides services to read customer meters for all residential and commercial accounts in the water utility service area that includes the City of Bellevue, adjacent communities of Clyde Hill, Hunts Point, Medina, Yarrow Point, and sections of Kirkland, and Issaquah. Meter reading is essential to maintaining water and wastewater revenue flow and equity among ratepayers (winter water consumption is used as the consumption basis for wastewater billing). Other services are provided directly to property owners at their home or business in locating leaks and meter turn-offs.

Section 3: Responsiveness to Request For Results

This proposal requests funding for meter reading staff, supplies, and equipment necessary to read, record, and report customer water consumption for customer billing purposes. Activities include:

- Read all commercial & residential water meters. Meter readers read over 40,000 water meters six times a year on assigned schedules and routes. They inspect meters for damage, tampering, leaks and malfunctions. Meter reads are entered into handheld data loggers and downloaded into billing software at the end of each day.
- Close out water meter accounts and re-read meter. Needed when customers moving in or out of their homes or businesses, and for construction/repairs. Re-reads (approximately 4905 in 2013) verify the accuracy of initial reads, often when a customer questions an unusually high bill.
- Shut off and turn on meters due to delinquent accounts. In 2013 the number of shut-off/turn-ons averaged 32 per week.
- Data collection and as-built correction. Data entry in Maximo (the asset management and maintenance data management system) and the Customer Information System (CIS). Meter data collection includes installation dates, sizes, types, locations, and designated of cycle/route locations. Errors on as-built drawings are noted and corrections are coordinated by meter reading staff.
- Respond to customer service requests. Meter readers provide direct customer service and build goodwill by answering questions, helping them solve leak and high consumption problems, and explaining City policies.
- Maintain meter box and replace meters. Readers repair/replace meters that are obsolete, inaccurate, or damaged and maintain/adjust water meter boxes to reduce the potential for trips and falls.
- Clean vegetation and debris around the meter box. Clean meter-box areas allow meter readers to readily access meters and demonstrate the City's commitment to maintaining its equipment and respecting the neighborhood environment. Courtesy tags may be left to notify customers of vegetation problems.
- The City repairs/replaces all damaged meters. If a customer requests a meter accuracy test, the request is done well within the 10-day window. Prompt testing can determine whether the meter is malfunctioning or if there is a leak in the service line. Early leak detection saves water. Meter readers provide brochures to help customers with high bills to identify the reasons for high water consumption. The Utilities Department also uses meter reading data to analyze community water usage trends and develop conservation strategies.

Mandates and Contractual Agreements:

There are several WAC's and contractual agreements that require this service be provided.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Efficiencies/Innovations:

Radix handheld reader devices are currently used to provide in-field data capabilities and reporting integration with the Customer Information System (billing system). In 2008 an AMR Study was conducted to aid the utility in evaluating its current water service meter reading program and analyzing the potential for transitioning to an automated meter reading system. A consultant analyzed technology options, costs, and non-cost factors and compared Bellevue to other local jurisdictions. Results indicated we have amazingly high accuracy rates and provide a great range of services (see Section 5). The Utility is efficiently and effectively using the direct manual reading approach for the majority of its meter reading. Study recommendations:

- Continue direct manual reading for the majority of water service meters.
- Continue bimonthly meter-reading and billing.
- Consider implementation of AMR technology in the central business district (CBD).

Short- and long-term benefits of this proposal:

Water meter readings are entered into Utilities' customer billing system and used as the basis for calculation of water bills. Water meter readings are also used to calculate customer wastewater charges based on winter water usage. Accurate water meter readings give Utilities a legitimate basis for both water and sewer billing and revenue collection. Reliable billing revenue allows the City to provide the essential water and wastewater services that support a healthy and sustainable environment. Accurate and timely water meter reading also ensures that the City complies with multiple state regulations.

Describe why the level of service being proposed is the appropriate level/Scalability:

The 2008 Automated Meter Reading Study confirmed that bimonthly meter reading and billing are currently the appropriate meter reading service levels for the City of Bellevue (see Section 4, Efficiencies/Innovations). Meter readers must adhere to bi-monthly reads on an eight cycle route assignment in order to supply water consumption data for billing purposes. Related to scalability, quarterly and semi-annual meter reading intervals have been evaluated and are not advised based on a) impact to revenue collection; b) water loss not discovered.

Factors in the Healthy and Sustainable Environment outcome:

- Factor 2: Clean Reliable Water. The meter readers are often the only direct contact that customers may experience. Meter readers respond to customer requests to help locate leaks, explain water conservation methods, and distribute educational brochures. If high water consumption is not due to a leak, meter readers then advise the customer about water conservation practices and programs that could yield water and bill savings.
- Factor 3: Clean Green City. Regular cleaning of meter box sites not only provides better access to read meters, but also provides a clean and safe environment to citizens and contributes to well maintained and attractive neighborhoods
- Factor 4: Natural Environment. When meter readers read a customer's meter, they note if water usage is unusually high. High consumption may indicate a water leak and the meter reader will work with the customer to locate a leak. On-site leak identification minimizes property damage as well as unaccounted water loss. Unreported leaks can cause damage to streams and fish.

Other factors addressed:

- Quality Neighborhoods, Factor 2: Facility & Amenities. Regular cleaning of meter box sites provides a clean and safe environment to citizens and contributes to well maintained and attractive neighborhoods.
- Responsive Government, Factor 3: Customer-focused Services. The Utilities Department maintains a positive and visible community presence through the meter reading program. The meter readers working regular routes are likely to notice changes or unusual situations which need immediate attention. This familiarity allows them to help customers who qualify for low-income discounts or need medical aid, including

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

calls to 911. The meter readers also carry a variety of City brochures, quick reference guides, and City contact numbers and to help citizens reach the right City department or agency.

Purchasing strategies in the Healthy and Sustainable Environment outcome:

- Keep our city clean and free of waste, debris, and toxic materials by having meter readers visually inspecting meter boxes to detect leaks early. The current manual read method for residential meters is cost effective. The accuracy rate is extremely high and employee productivity is above the industry standard. The 2008 AMR Study found the current meter-reading approach of predominantly manual meter reads is consistently the most cost-effective option based on a Present Value analysis and considering the present bimonthly reading and billing frequency.
- Promote reduction, reuse and recycling, conserve valuable resources and discourage excessive consumption by working directly with customers face to face to identify excessive use or leaks so they can be mitigated quickly to avoid waste. The meter readers have many opportunities to interact with customers to promote water stewardship by giving advice and handing out informational brochures.

Citywide purchasing strategies addressed:

- Best Value in meeting community needs; Ensures sound management of resources and business practices. Provides customer equity by accurate and regular reading of meters and conservation benefits for the environment.

Internal: Utility Billing Customer Service Representatives (report information from customers to meter readers, shutoff/turn on service requests, etc.), Water Maintenance Section (schedule/repair problem meters, unscheduled shut downs, emergency repairs, and respond to customer concerns), Customer Information Systems Support.

External: Radix Company (supplier of meter reading software/handheld equipment). Puget Sound Energy (PSE) was contacted in 2011 to revisit the possibility of partnering with Bellevue to read meters. PSE currently performs their AMR reads for power and gas using a third party who owns the network, which is 25 year technology based on 1-way radio. PSE hopes to get funding to convert to a 2-way network sometime before 2023.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0254f	Utilities: Meter reading accuracy	99.98%	99.98%	99.98%	99.98%	99.75%	99.75%	99.75%
140.0316f	Utilities: Meter reading productivity in meter reads per hour	42.98	42.39	43.65	44	43	43	43
140.0401f	Utilities: Total cost per meter read	\$0.76	\$0.77	\$0.79	\$0.66	\$0.75	\$0.75	\$0.75

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

The changes seen in FTEs and base operating costs related to this request do not represent a net increase in the total number of authorized departmental FTEs or expenses. The proposed FTE/operating expense changes seen in this proposal reflect a department-wide effort to better align existing resources to departmental service delivery. New FTE and/or operating expense requests are listed as needed.

5B: Are one-time expenditures included in this proposal?

\$37,000 for 2015 to add one additional right hand drive jeep

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	5.80	5.80	Expenditures	58,949	16,608
LTE	0.00	0.00	Personnel	512,288	531,729
Total Count	5.80	5.80	Supporting Revenue	0	0
			Rev-Exp Balance	-571,237	-548,337

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Asset Replacement	
Proposal Number:	140.47DA	Outcome: Healthy and Sustainable Environment
Parent Proposal:	140.40PA,N/A	Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.47DA	Budget Status: Recommended
Attachments:	0	Primary Staff: Scott Pickard, x4587

Section 2: Executive Summary

Consistent financial management policy dictates systematic Utility funding to replace vehicles and other work equipment that have reached the end of their useful lives (Comprehensive Financial Management Policy 10.1.V.C). Asset Replacement is the Utilities' equivalent of the Electronic Replacement Fund (ERF) and Information Technology (IT) Replacement programs. The utility vehicles and other equipment scheduled to be replaced in 2015-16 are needed to transport crews, inspectors, and other staff to construction sites with the equipment and tools needed to perform their jobs. This proposal is funded from asset replacement reserves created specifically for this purpose, so there is no utility rate impact to customers.

Section 3: Responsiveness to Request For Results

This proposal provides funding to utility replace vehicles and other work equipment that have reached the end of their useful lives. The vehicles and other equipment scheduled to be replaced during the 2015-16 budget period are needed to get crews, inspectors, and other staff to construction sites with the equipment and tools needed to perform their jobs. Due to the nature of the asset reserves (as described below), acceptance of this proposal will have no rate impact on customers.

This proposal includes the use of asset replacement reserves (see Proposal No. 140.40PA) to provide funding for annual equipment replacement needs. In some years, contributions from rates are below the level of current expenditures, requiring the use of asset replacement reserves to help fund the replacements. In other years, contributions from rates exceed current replacement needs, allowing reserves to be rebuilt. This is in accordance with the specific objective for which the asset replacement reserves were created. The use of this mechanism allows for replacements to be purchased while protecting Utility customers from rate spikes that might otherwise result from annual equipment replacement needs. For example, 2015 capital outlay requests for the Water, Wastewater and Stormwater utilities total \$1.0 million, and include a Video Van, a Jet Rodder, and seven (7) other vehicles, each of which has reached the end of its useful life. 2016 capital outlay requests include five (5) vehicles and amount to about \$0.5 million. Asset replacement reserves are funded through annual contributions from operating funds, currently totaling approximately \$1.7 million.

A specific list of the assets scheduled for replacement during 2015 and 2016 and the estimated replacement cost for each, is as follows:

Asset #	Description	2015 Budget Request
9998	FREIGHTLINER JET RODDER	\$ 378,088
3467	FORD E450	\$ 310,000
3511	FORD F250 - Includes \$30K upgrade	\$ 71,470
3161	DODGE 3/4T 4X4	\$ 68,015
3460	CHEVROLET 2500	\$ 43,187
3043	SMART-RADAR TRAILER	\$ 37,408
8993	STLY HYD UNIT/TLR	\$ 30,000
8982	PAC TRAC	\$ 30,000

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

8704	CONCRETE SAW		\$ 12,533
		Total – 2015	\$980,701
Asset #	Description		2016 Budget Request
3543	FORD E450		\$ 310,000
3315	CATERPILLAR EXCAVATOR		\$ 191,000
3296	CHEV EXPRS 8 PASS VAN		\$ 39,120
3256	GMC SONOMA X-CAB 4X4		\$ 38,500
3269	CHEV EXPRESS CARGO VAN		\$ 38,429
		Total – 2016	\$ 617,049

The replacement of assets through the use of an Asset Replacement Account is outlined in the following City financial policies:

Waterworks Utility Financial Policies (Resolution 5967 (1995)). These policies specify that “Utility funds will maintain separate Asset Replacement Accounts to provide a source of funding for future replacement of operating equipment and systems.” (Comprehensive Financial Management Policy 10.1.V.C). Specific direction is included that dictates how operating and asset replacement reserves are to be funded and used. The financial policies are reviewed and approved each budget cycle by the Environmental Services Commission and the City Council.

This proposal addresses the following City-wide Purchasing Strategy:

Provide best value in meeting community needs: This proposal utilizes asset replacement reserves to minimize rate impacts to customers, thereby providing customers with the best value for their rate dollars. Annual revenues are set aside for asset replacement based on aggregate Utility asset replacement cash flow needs over the long-term forecast period instead of individual asset replacement amounts. This strategy effectively provides funding for future replacements as needed while allowing Utilities to minimize the progressive build-up of excess cash balances that would result from creating and funding separate reserve accounts for each individual asset and equipment items. The approach not only makes efficient use of ratepayer dollars but also balances the short- and long-term impacts on rates of funding asset replacements.

In the short-term, this proposal provides funding to replace vehicles and other work equipment that have reached the end of their useful lives. The vehicles and other equipment scheduled to be replaced during the 2015-16 budget period are needed to get crews, inspectors, and other staff to construction sites with the equipment and tools needed to perform their jobs.

The long-term benefit of this proposal provides rate stability through the use of a reserve account, thereby preventing the replacement of expensive assets in a given year from causing fluctuations in the utility rates.

While this proposal is scalable, reductions to the levels proposed is not recommended as it could affect the City’s ability to provide services identified in other Utilities proposals. Council established asset replacement reserves specifically to provide funding to replace needed equipment.

Not funding asset/equipment replacements would mean equipment scheduled for replacement in 2015 and 2016 would not be replaced at least until 2017. That would increase the amounts we would need to request during the 2017-2018 budget process. Some items might not last until 2017/18, which would impact our ability to provide services identified in other Utilities proposals. Also, deferring the replacement of these items would not provide any rate relief to customers.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Service provided in this proposal addresses the following factor in the Healthy and Sustainable Environment outcome:

Water: Reliable delivery of clean water. The vehicles and other equipment scheduled to be replaced during the 2013-14 budget period are needed to get crews, inspectors, and other staff to construction sites with the equipment and tools needed to perform their jobs. These construction projects cover all aspects of our business: providing clean water, removing wastewater for treatment and disposal, and providing resource habitat management, flood control, and other stormwater services.

Other factors addressed by this proposal include the following factor in the Economic Growth and Competitiveness outcome:

Land, Infrastructure and Planning, and Responsive Government: Stewards of the Public Trust. Reliable infrastructure is one of the foundations of economic competitiveness and growth, and having the appropriate equipment available supports Utilities' ability to care for that infrastructure. Managing reserves in a deliberate well thought out and fiscally prudent manner supports continued economic viability and creates financial sustainability. Managing risk by providing the means to replace aging equipment and the capacity to expand and enhance the CIS system without undue impact on customers is key to earning the public's trust that their government is safeguarding their interests and managing their assets well.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0358	Utilities: Percentage to target: Asset Replacement account balance				N/A	100%	100%	100%
140.0360	Utilities: Percent Variance: Actual Capital Asset expenditures versus Budgeted Capital Asset expenditures				N/A	100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

	2015	2016
Transportation Work Equipment	\$183K	\$116K
General Work Equipment	\$798K	\$501K
Total	\$981K	\$617K

5C: Are dedicated revenues included in this proposal?

Asset Replacement Reserves

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.00	0.00	Expenditures	980,701	617,049
LTE	0.00	0.00	Personnel	0	0
Total Count	0.00	0.00	Supporting Revenue	0	0
			Rev-Exp Balance	-980,701	-617,049

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Fiscal Management	
Proposal Number:	140.49NA	Outcome: Healthy and Sustainable Environment
Parent Proposal:		Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.49NA	Budget Status: Recommended
Attachments:	Primary Staff: Martin Chaw, x7199	

Section 2: Executive Summary

Unlike General Funds departments, Utilities are separate enterprise funds that, by law, must each be self-supporting. The objective of the Fiscal Management Team is to support the daily financial operations of the Utilities Department, monitor and report on the Utilities financial condition, conduct rate evaluations to ensure financial sustainability, protect the City's investment by maintaining adequate operating reserves, and act in the best interest of the ratepayers. Financial management of the Utilities are dictated by financial policies as memorialized in the City's Comprehensive Financial Management Policies (10.1). By adhering to these financial policies, taking a long-term approach to financial planning, and practicing vigilant financial management, Bellevue Utilities has earned a Aa1 bond rating (the highest rating possible for a utility our size) and is financially prepared to meet both operational and infrastructure replacement needs.

Section 3: Responsiveness to Request For Results

The Utilities' Fiscal Management Team, comprised of 6.0FTEs and a 2015-2016 biennial budget of \$1.6 million, supports four separate utilities (water, sewer, stormwater, solid waste), each with its own unique operational and capital requirements. Services provided by this Team and included in this proposal are below.

Budget Development and Monitoring: State law requires the development of an annual or biennial budget; outlines specific requirements for timing, content, and mandatory public hearings; and requires filing quarterly reports showing expenditures and liabilities against each budget appropriation and revenues received. Staff develops each Utilities' biennial budget in accordance with the City's comprehensive financial management policies and utility financial policies. The budget development process includes identifying programs and activities, preparing budget requests, developing financial forecasts, and preparing budget materials and presentations to the Environmental Services Commission and Council.

Budget monitoring consists of monthly, quarterly, and annual monitoring of revenues, expenses, and fund balances for both operations and capital (CIP), including the determination of mid-course budget corrections, if needed, such as changing spending patterns and/or adjusting the budget. This proposal helps accomplish the operating expense performance measure through vigilant budget monitoring to identify the potential for major variances before they occur and through active cost containment.

Ratemaking and Forecasting: These activities are closely tied to budget preparation, and include highly technical activities that require a comprehensive knowledge of utility rate setting methodologies and a deep understanding of Utilities' business. The Utilities rate planning horizon includes up to 75 years. Rate revenues are the primary source of funding for Utilities, so the development of accurate rates to fully fund each utility's forecasted operating and capital needs is critical.

The ratemaking process involves short- and long-term financial forecasting that ensures rates are set as low as possible while still allowing Utilities to accomplish ongoing operations, maintenance, repair, long-term renewal, and replacement of facilities, system improvements, and its general business. The Fiscal Management team uses custom long-range financial forecast models to project rate levels necessary to support forecasted

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

costs, making rate increases as smooth and gradual as possible and ensuring that each generation of customers bears its fair share of costs for the long-term use and replacement of the system. Operation of these models and other tools, understanding the complex interactions among variables, balancing short- and long-term ratepayer interests, and other factors requires highly specialized training. This proposal helps accomplish the rate comparability performance measure by minimizing rates through cost controls, efficiencies, and using forecasting/ratemaking techniques aimed at mitigating rate impacts.

Accounting and Grants Management: Staff provides Accounts Payable (A/P) services processing vendor invoices and other payments, and Accounts Receivable (A/R) services billing for Utilities-specific services. This activity is different from work performed by the A/P and A/R groups in the Finance Department and does not duplicate their services. Utilities' A/P identifies and verifies payments for recurring expenses, which are then submitted to the Finance Department for payment; and calculates and pay State and City taxes and franchise fees. Utilities' A/R function is completely independent of the City's A/R group and involves billing and tracking recoveries for services unique to Utilities, such as property leases, water service installations, connection charges, capital recovery charges, direct facility charges, and latecomer's agreements. This team also assists Utilities' program managers with grants-related activities including tracking and recording revenues and expenditures and the development of required grant documentation.

RCW 43.09.210 specifies that "no department ... shall benefit in any financial manner whatever by an appropriation or fund made for the support of another" and requires that enterprise funds be kept entirely separate from general government as well as from other enterprise funds. State law therefore requires separate accounting for each of the four Utility operating funds and three CIP funds.

Special Projects: Staff provides on-call analytical and support functions and essentially act as internal financial consultants. Examples of special projects include lifecycle analyses; development and support of the Engineering time reporting system; automation and support of Utilities' workload planning system; response to the 2008 State Supreme Court ruling regarding fire protection costs, including a specialized cost of service analysis, development of a cost recovery strategy, and evaluation of rate and tax impacts; and analysis of the costs and funding sources for Utilities projects associated with the Mobility and Infrastructure Initiative.

Program Support: Staff provides ongoing support for Utilities' involvement with outside agencies, such as the Cascade Water Alliance and MWPAAC; Utilities capital improvement projects (through budgeting and monitoring); City-wide systems and initiatives (e.g., JDE reports, Mobility and Infrastructure Initiative); Technical support for other departments (e.g., timekeeping support for Civic Services Department, analytical support for Budget One planning teams); NPDES, and other issues.

Efficiencies/Innovations: The Fiscal Management Team constantly develops, implements, maintains, and upgrades tools and procedures to improve the efficiency of its internal business processes. Examples include implementing new rate models, automating monthly and quarterly taxes, automating timekeeping, and automating parts of budget development and monitoring, and providing support for Utilities and other City departments by developing and supporting tools for timekeeping, workload planning, cost allocation, etc.

As part of the budget development process, the Fiscal Team develops short-term (7-year) and long-term (20-year) financial forecasts of operating needs and funding sources, and a very long-term (75-year) forecast of capital and infrastructure needs and funding sources. These forecasts ensure that ratepayers' and the City's financial interests are addressed in both the short- and long-term (for example, that "growth pays for growth").

This proposal supports all activities needed to accurately forecast needs and set rates that are fair and accurate; develop and monitor Utilities' budget to ensure that monies are expended for the purposes they were

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

approved; properly account for all revenues; review all expenditures and determine the validity and accuracy of payment requests; ensure all invoices for miscellaneous service provided by Utilities are issued in a timely fashion and tracked until paid; and reimbursement requests associated with grants are adequately documented. By performing these activities using in-house staff, the City benefits from Utilities-specific experience and knowledge that staff have acquired over time. Reducing fiscal staff would jeopardize Utilities' ability to remain fiscally responsible; outsourcing these activities would be far more expensive than using in-house staff.

Reducing the level of service for fiscal management would negatively impact Utilities' ability to perform its mission. For example, ratemaking and forecasting could be curtailed or outsourced at a higher cost, and grants and program support services could be curtailed, putting more of the burden on program managers who are not as familiar with program financial details and/or reducing our ability to apply for and receive grant funding. Budget monitoring could be scaled down from the current level of service (monthly), but this would eliminate key internal checks and significantly reduce our ability to adjust for variances while not significantly reducing the costs associated with this activity. As noted above, the level of effort required to perform Utilities accounting support is not scalable; removing this activity from this proposal would merely be shifting it to another department. Utilities is required by law to track the costs to provide these services to each Utility fund and therefore the total amount charged to ratepayers through utility rates and charges would not be reduced.

Service provided in this proposal addresses the following factors in the Healthy and Sustainable Environment outcome:

Water: Reliable delivery of clean water; Natural Environment. These activities ensure the appropriation and management of funds to support programs for clean drinking water, reliable water supply, wastewater management, storm and surface water management, conservation of natural resources, solid waste and hazmat management, and other programs. The Fiscal Management Team is responsible for the design of water and wastewater utility rates, which are structured by charging lower rates for low levels of consumption and progressively higher rates for greater consumption, thereby promoting conservation.

This proposal will also support the Responsive Government outcome and the following factors:

Customer-Focused Service. Funding of this proposal will purchase the following strategies: strategic leadership; high performance workforce; and customer focused service. Specifically, this proposal provides staff to: deliver the services internal and external customers want in an effective and efficient manner, when they need or expect the service to be provided, and follow through on all commitments to develop a consistent reputation of reliability; respond to expected and unexpected conditions; and perform its functions in the most productive and cost-effective manner. The fiscal team routinely looks for opportunities to collaborate, reduce redundancies, and implement innovative approaches to better deliver the services the community and internal customers want and expect.

Stewards of the Public Trust. This proposal provides staff to manage income, assets, expenses, and reserves in a deliberate, well thought out, and fiscally prudent manner. Utilities' services and processes are evaluated to ensure compliance with applicable state and federal laws and are compared with benchmark organizations to ensure adherence to best practices and industry standards. Staff routinely develop and maintain integrated systems used both by fiscal staff and other department staff to support business objectives efficiently; examples include tools for budget development and management. Staff also ensure that selection, procurement, and maintenance of utility's assets is done in an open and competitive process that provides the community with the best value for the dollar; and manage risk and liability by ensuring compliance with contract and grant requirements.

Citywide purchasing strategies addressed by this proposal:

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Provide the best value in meeting community needs, Provide for gains in efficiency and/or cost savings, Ensure services are “right-sized”, and Ensure sound management of resources and business practices. This proposal provides a cost-effective means of managing ratepayer dollars, maximizing ratepayer benefits while minimizing rates. It includes all activities related to the development and monitoring of budgets to ensure that adopted budgets are expended for the purposes they were approved; all revenues are properly accounted for; all expenditures have been reviewed to determine the validity and accuracy of payment requests; all Utilities invoices for miscellaneous services are issued in a timely fashion and tracked until paid; and that expenditures and reimbursement requests associated with grants are adequately documented. By using in-house staff, the City benefits from Utilities-specific experience and knowledge that staff have acquired over time. For example, utility ratemaking is a highly specialized activity; if this proposal is not accepted, this activity would need to be provided by external consultants, at a cost much higher than that which is being requested in this proposal. External: Environmental Services Commission, Cascade Water Alliance (Cascade), King County, other communities served by Bellevue Utilities, Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC), Utilities Engineering and O&M Divisions, Finance and Development Services Departments, Budget Office, and Fiscal Managers in other Departments.

The Fiscal Management Team’s activities support all other Utilities’ proposals by providing needed budgeting, budget management, and technical and financial assistance on an ongoing basis. Centralizing this work effort in the Resource Management and Customer Service Division provides a cost-effective way to support the services, programs, and activities performed by Utilities at a lower cost than would be required if the workload was distributed throughout the organization.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0128f	Utilities: Operating expenditures vs. amount budgeted	88%	87.79%	96.24%	100%	100%	100%	100%
140.0131f	Utilities: Median Utility bill comparison	101.03 %	98.56%	96.04%	100%	105%	105%	105%
140.0134	Utilities: Percentage to target: Operating Reserves balance for Water Utility				N/A	100%	100%	100%
140.0135	Utilities: Percentage to target: Operating Reserves balance for Wastewater Utility				N/A	100%	100%	100%
140.0136	Utilities: Percentage to target: Operating Reserves balance for Storm Water Utility				N/A	100%	100%	100%
140.0415	Utilities: Percent Variance: Actual Operating Revenue vs. Budgeted Operating Revenue					100%	100%	100%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

General financial consulting and other prof svcs (Sewer COS Study and CRC Model Development)

2015: \$104K

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	6.00	6.00
LTE	0.00	0.00
Total Count	6.00	6.00

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	170,472	69,389
Personnel	668,604	692,281
Supporting Revenue	0	0
Rev-Exp Balance	-839,076	-761,670

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Computer and Systems Support		
Proposal Number:	140.60NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.46DA, 140.51N	Budget Status:	Recommended
Attachments:		Primary Staff:	Margaret Nolen

Section 2: Executive Summary

Utilities relies on computers to provide efficient water, sewer, and storm drainage services to customers. This proposal includes all the Utilities' software, hardware, vendor maintenance, professional services, and department personnel who provide business automation user support. While we depend on services from our partners in City Information Technology (IT), this proposal meets them halfway by bringing business knowledge to automated solutions. Unlike General Fund departments, Utilities is funded by rates and must separately account for revenues and expenditures for each business line. Primary business systems include billing, work management, and sewer/storm condition assessment video systems. Many specialized systems also include the water meter reading, engineering design, and water modelling. User support personnel conduct automation planning, implementation/testing support for changes, system training, and process improvement analysis, and reporting.

Section 3: Responsiveness to Request For Results

Technology services in this proposal differ from those provided by IT Department, and do not duplicate them. This proposal supports Utilities' share of the enterprise work management system (Maximo) vendor maintenance and the whole of the vendor maintenance for the billing and collections system (CIS). Our user support team provides the following services for both primary systems:

Operations support: answering business-related system questions ("How do I do x?" or "Why isn't this working?" or "Where do I find this performance measure?"). Reporting and data mining: Creating ad-hoc and enterprise reports. Project management and testing for upgrades, process changes, system enhancements, and "bug" fixes. Ongoing system-related user training, which is critical to maintaining consistency and data quality. Business process improvement and problem solving to streamline work. System configuration and management: adding users, changing asset categories, and changing bill rates. IBM's Maximo work management software is used to manage over 248,000 assets that make up the water, sewer, and storm water infrastructure. Maximo is also used by Parks, Transportation, Facilities, Fleet, and Fire. We provide user support staff, license and support costs for Utilities users, and professional services for enhancing Maximo to meet our business needs. This 24-hour, 7-day a week work management system is critical to our ability to support a healthy and sustainable environment. CIS manages and bills the accounts of 38,000 customers in Bellevue and surrounding communities. Revenues collected by CIS are the primary source of funds for Utility operations. CIS bills for utility services, which are necessary to foster a healthy and sustainable environment. Annually, the system bills \$111 million for utilities and collects over \$8 million in tax revenue for the General Fund. CIS functionality includes a bill payment website, a voice response phone payment system, and integration to a business intelligence analytical engine for reporting and modelling. CIS has interfaces to support integration with the City's General Ledger, CLASS Point of Sale system, meter reading system, Mapshot GIS browser, an outsourced lockbox provider, an outsourced bill print vendor, and banking services for 3rd party payment concentration and business-to-business payment transfers. Interfaces to other systems and outsourced services undergo continuous review to ensure that they are efficient and the services are cost-effective.

Specialized "niche software and services" are also needed for functions unique to utilities. Increasingly, these services are being offered as part of web-based "cloud services" through subscription. This proposal encompasses these subscription and licensing costs, as well as the staff to work with remote vendors with

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

remote operations and solutions accessed via the Internet. Cloud-based services require staff support to configure systems, plan projects, generate reports, and integrate solutions into processes; this proposal funds our planning, testing, and integration personnel. Whether cloud-based or hosted by IT, solutions are researched and evaluated by business staff partnering with IT. Staff provide ongoing planning and analysis for Utilities systems supporting operations, including:

Identifying new technology initiatives based on industry trends and staff need; Performing feasibility analysis, software selection/development, testing, and implementation; Positioning Utilities IT technology rollouts, minimizing impact on customer service and operations and maximizing the benefit of enterprise technology; Representing Utilities on the IT Change Advisory Board and Enterprise task forces; Planning and budgeting for replacement, upgrade, or repair of existing hardware and software for Utilities; Providing technology communication tailored to the needs of the users in each division of the department. A cross-division committee, the Utilities Automation Policy Team (APT), made up of leaders from each division and facilitated by user support staff funded by this proposal, provides oversight to ensure consistency and support of enterprise and department initiatives. APT also sets department priorities. Recent examples of accomplishments supporting the HSE values/factors by enabling utility workers and ensuring revenue flow to support water/wastewater/storm integrity include:

Improved traffic control planning with acquisition of software to assist staff performing maintenance in the street right-of-way by improving staff efficiency in plan creation and staff/citizen safety performing work; Improved sewer/storm condition assessment scoring with implementation of software and conversion of historical assessments to a national standard supporting better reporting of infrastructure failure vulnerability. PRIMARY Outcome Factors:

Factor 2: Water; Factor 3: Natural Environment; Factor 4: Built Environment. By supporting Maximo users, our team helps them manage work, assets, and inventory in order to repair and maintain infrastructure that delivers water, conveys wastewater, controls storm water, and preserves the natural environment. A reliable billing system and means to mine data for information is critical to collecting revenue for infrastructure to meet the need for clean air, water, support the natural environment, and sustain the built environment. CIS generation of revenue provides funds to operate, maintain and replace infrastructure, treat sewage, and reduce failure and subsequent harm to the natural environment. Storm drainage billing considers impervious service and rewards preservation of natural drainage features. Economies achieved by centralized department technology inventory management and technology procurement, combined with an understanding of the utility business, reduces unnecessary technology expenditures. This helps keep rates for water, sewer, storm, streets maintenance, and solid waste more affordable. PRIMARY Outcome Purchasing Strategies:

Offer process improvements to create program efficiencies: Maximo provides preventive maintenance (PM) capability to support proactive inspection and maintenance of water, sewer, and storm assets. An example is the regular cleaning of catch basins to prevent flooding, regular cleaning of sewer pipes to remove obstructions to prevent sewage overflows, and regular fire hydrant inspections. CIS vendor support includes updates (releases) which enhance and correct. Staff reviews them for possible improvements. CITYWIDE Purchasing Strategies:

Best Value in Meeting Community Needs. As citizens seek better ways of managing time, we seek to enable additional self-serve tools. Examples include enabling citizen reporting of work requests through use of MyBellevue and offering billing and payment on a SmartPhone. Gains in Efficiency and/or Cost Savings; Ensure that Services are "Right Sized." The team supports a growing portfolio of systems, devices, interfaces, and users at City Hall, Bellevue Service Center, and in the field. Our team is stretched to adequately respond to demand. As we move toward serving an increasingly mobile workforce, it will be important for us to monitor service level performance and impact to staff/citizens. Leverage Collaboration or Partnerships w/ other departments, external organizations. Our team works closely with IT and others to communicate and prepare Utilities for technology change. We also work with other departments to develop processes and interfaces that work in the best interest of the City as a whole. OTHER Outcome Factors:

Safe Community: Factor 1: Response; Factor 2: Prevention; Factor 3: Planning & Preparation. Utility groups use

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Maximo for preventive maintenance. It is used in event response, recording costs for FEMA funding. Economic Growth and Competitiveness: Factor 3: Land, Infrastructure and Planning. Reliable infrastructure and consistent service delivery are vital to economic sustainability. Maximo enhances Utilities' ability to provide water, wastewater, and storm water maintenance services quickly to homes and businesses. Responsive Government, Factor 2: High Performance Workforce; Factor 3: Customer-Focused Service; Factor 4: Stewards of the Public Trust. The team is supporting a 15 tablet pilot for a high performance mobile field crew. A mobile utility map viewer on a connected tablet (instead of a paper map book) is the innovation being piloted. Feedback from this pilot will be used to shape mobile solutions in the future. Our team provides user training enabling staff to take better advantage of automated systems. Customers want convenient, timely, and quality service, and they can use the self-service features provided on the MyUtilityBill IVR and website that are offered 24X7. Customers can receive email notification when their electronic bills are ready with a link taking them to the ebill statement. CIS is designed and operated with best accounting practices and an automated interface to the City's GL system, ensuring that public funds are managed in an ethical, prudent, responsible, and fiscally sustainable manner. Innovative, Vibrant, and Caring Community, Factor 2: Opportunities for Citizen Interaction; Factor 3: Support Services. Maximo connects to MyBellevue application allowing citizens to submit and monitor requests. CIS supports a rate and tax relief program that addresses needs of low income, senior, and disabled customers.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0146	Utilities: Percent CIS system is available to internal and external customers	N/A	N/A	99%	100%	99%	99%	99%
140.0148	Utilities: RMCS: Business Systems Customer Satisfaction Survey - Percentage of Customers rating the Work Group Good or Excellent (4 or 5)	N/A	78.8%	N/A	79%	85%	85%	85%
140.0149	Utilities: Percent Maximo application is available to customers	N/A	N/A	99%	100%	99%	99%	99%
140.0152f	Utilities: RMCS: Business Systems - Percentage of Actual Expenditure versus Expense Budgeted	N/A	N/A	N/A	87%	100%	100%	100%
140.0339	Utilities: Percentage of RMCS: Business Systems user assistance requests satisfied within service level agreement thresholds			88.18%	90%	80%	80%	80%
140.0340f	Utilities: Percentage of RMCS: Business Systems planned projects completed on time	N/A	N/A	N/A	N/A	80%	80%	80%

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Computer replacement for Utilities varies depending on inventory age, so there is some inflation in 2016; CIS & Maximo support vendor annual increases at 5% and 10%, respectively; vendor software subscriptions for new business-specific niche systems (non-enterprise software and cloud services) that were introduced in 2013-2014; CIS upgrade professional services costs of \$120K for an extensively modified Version 4; Additional professional service funding of \$5K is included for a rate restructure project and a project to provide customers with a capability to set up recurring variable credit card payments (a high priority customer request); A cloud-based call management system to support improved monitoring and management of customer service call center calls is included in 2015 and 2016 for \$15K per year; A move to Office 365 operating system is likely to force relicensing of office software that is an extension to MS Office so relicensing for MS Visio, Project, and Crystal Reporting is included.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	4.20	4.20	Expenditures	512,970	404,474
LTE	0.00	0.00	Personnel	514,169	532,137
Total Count	4.20	4.20	Supporting Revenue	0	0
			Rev-Exp Balance	-1,027,139	-936,611

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Water Supply Purchase and Sewage Disposal ²		
Proposal Number:	140.61NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.35NA & 140.36	Budget Status:	Recommended
Attachments:	0	Primary Staff:	Eric P. Lee, x 6963

Section 2: Executive Summary

Water:

The purchase of wholesale water supply from the Cascade Water Alliance allows Bellevue Utilities to provide water service to over 40,000 service connections in the Bellevue Utilities service area, which includes Clyde Hill, Medina, Yarrow Point, Hunts Point, and Issaquah (South Cove area). In 2013, about 5.8 billion gallons of water were used by customers of Bellevue Utilities.

Sewer:

The City of Bellevue provides sewage collection and transmission services for customers within its service area but does not provide treatment. The purchase of wholesale sewage treatment and disposal services from King County Metro allows Bellevue Utilities to provide sewer service to over 38,000 service connections in the City of Bellevue and surrounding jurisdictions. In 2013, over 3.0 billion gallons of sewage was sent to King County for treatment and disposal by Bellevue Utilities on behalf of its customers.

Section 3: Responsiveness to Request For Results

The Purchase of Water and Sewage Treatment/Disposal is entirely supported by utility rates.

The City's water utility provides potable drinking and irrigation water within its service area by procuring water from the Cascade Water Alliance (Cascade), while sewer utility provides sewage collection and transmission services for the customers within its service area but contracts with King County Metro for treatment and disposal. This proposal is for the wholesale purchase of water by the City of Bellevue from the Cascade Water Alliance of which it is a member, and the treatment/disposal of sewage through King County Metro.

By contract, the City of Bellevue is required to purchase 100% of its water supply that is not provided by wells or other city-owned resources. The City of Bellevue does not have the resources and/or water rights to provide necessary water for the needs of the community without purchasing water from an outside source. The City also has a long-term contract, effective through June of 2036, with King County Metro for the treatment and disposal of all sewage flows generated within the City's service area.

This proposal includes partial funding for an intergovernmental relations specialist focusing on issues directly related to water supply and Cascade Water Alliance and King County Metro sewage treatment issues. Services provided by this individual include both internal and external coordination and collaboration to effectively address emerging issues such as planning, decisions regarding infrastructure investments, providing City Council and leaders with alternatives and recommendations, and implementing Council direction. This ensures that City Council and Utilities have an efficient, centralized means of analyzing and resolving issues and maintaining an effective voice in partnership with regional, state, and federal elected officials and staff.

Mandates and Contractual Agreements:

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

- **Duty to Serve:** Bellevue City Code 24.02.065 Duty to serve. The utility is responsible for providing water service to all customers within the utility service area subject to the requirements of this code, other provisions of the Bellevue City Code and applicable state law.
- **CWA Contract:** Interlocal Contract, Cascade Water Alliance, December 15, 2004. The City of Bellevue agrees to purchase water from Cascade based on historical water usage for the preceding three-year period.
- **Federal Law:** Safe Drinking Water Act of 1974 (and subsequent amendments), United States Environmental Protection Agency. The Safe Drinking Water Act is the principal federal law that ensures safe drinking water for the public. The Act authorizes the United States Environmental Protection Agency to set national health based standards for drinking water quality, and applies to all public water systems in the United States. Water purchased from Cascade Water Alliance meets or exceeds these water quality standards, thus avoiding additional costs for water treatment.
- **Contractual Obligation:** Agreement for Sewage Disposal between the City of Bellevue and KC Metro, which establishes a contractual obligation for the City to utilize King County Metro sewage treatment services until July 1, 2036.

Short- and long-term benefits of this proposal:

- **Water Short-term benefits:** Cascade manages wholesale purchases and deliveries to the City. The City has no other source of water supply in the short term.
- **Water Long-term benefits:** Cascade plans for future water supply requirements and the required infrastructure to deliver a reliable supply of high quality water to its members. The City benefits from this through Cascade's coordinated regional efforts and the associated economies of scale. The City does not have access to water supply to meet the needs of the community without purchasing water from an outside source.
- **Sewer Short-term benefits:** King Country Metro manages the treatment and disposal of sewage, which relieves City staff of this task.
- **Sewer Long-term:** King Country Metro plans for future sewer requirements and the required infrastructure to treat and dispose of sewage for the users of its system. The City benefits from this through King Country Metro's coordinated regional efforts and the associated economies of scale.

Scalability:

This proposal is not scalable. Water use could be restricted through rationing, however, limiting water use would reduce revenues received from customers by substantially more than the reduction in the cost of water supply. This in turn would jeopardize the City's ability to provide utility services, and could potentially impact the quality of life in the community. In addition, there would be no immediate cost savings from reduced water usage because the water purchase contract with Cascade determines wholesale water charges based on a 3-year history and not actual use for the period. Therefore, there would be a cash flow issue created by the drop in revenues without an offsetting reduction in expenses. Sewage treatment and disposal is not scalable due to contractual obligations to pay King County Metro for services through July 1, 2036.

Factors in the Healthy and Sustainable Environment outcome:

- **Water:** This proposal is needed to ensure that the City continues to have a clean, adequate and reliable supply of water for the health of the community, and that drinking water supply be procured in a cost-effective and environmentally sensitive manner.
- **Built Environment:** Cascade and City of Bellevue actively promote water conservation. Water conservation stretches the current water supply, delaying the need to develop costly new water supply and infrastructure. By promoting the wise use of water, we help ensure an adequate supply for environmental and economic development needs.
- **Natural Environment:** King Country Metro enforces regulations to reduce harmful waste discharged from the system, and educates the public and businesses on ways to protect water quality. Metro's history of restoring the water environment of the Sound, lakes, and streams attests to its stewardship of the environment. Metro

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

enforces regulations to reduce harmful waste discharged to the system, and educates the public and businesses on ways to protect water quality. By using Metro's services, the City joins with Metro in its mission of protecting public health and enhancing the environment.

Other factors addressed by this proposal:

- **Responsive Government - Strategic Leadership:** This proposal is a major opportunity to partner and collaborate with other governments (Cascade members, King County Metro), organizations, and stakeholders to provide services to the community. This partnership allows City officials to advocate for the community's well-being and interests outside the walls of City Hall and the boundaries of the jurisdiction.
- **Responsive Government - Stewards of the Public Trust:** Utilities ensures that the City complies with contract and regulatory requirements thereby ensuring the Public's expectations are adhered to.
- **Economic Growth and Competitiveness - Land, Infrastructure and Planning:** A robust and strategic utilities infrastructure forms the foundation for the City's economic competitiveness and advances the standard of living in the community.

Citywide purchasing strategies addressed by this proposal:

- **Water - Leverage collaboration or partnerships with other departments and/or external organizations.** This proposal represents a collaborative effort with other Cascade members, which benefits the City in several ways. Cascade was formed by municipalities and water districts who worked collectively to find an alternative to the existing water contract with the City of Seattle. By forming the Alliance, Cascade is able to exercise control over water purchases and infrastructure that were previously handled only by Seattle. Due to our relative size, the City is able to have a more direct influence over its water supply as a member of Cascade than as a wholesale water purchaser from Seattle.
- **Water - Provide for gains in efficiency and/or cost savings.** Membership in Cascade gives the City a role in promoting water conservation and efficient use of limited resources. Conservation helps ensure a reliable supply of drinking water, keeps utility operating costs lower, and allows more water to stay in streams. Cascade's emphasis on water conservation and education helps to reduce water usage and extend the current supply of water and promotes environmental awareness and stewardship. Cascade promotes conservation through various methods including education and consumer rebates for energy-efficient products. The Cascade WaterSense Partnership Program distributes free high efficiency showerheads, aerators, and rain gauges. Lastly, by helping to manage its wholesale costs, the City is able to get the most value for our money, and we are able to pass the savings on to City customers.
- **Sewer - Collaboration/Partnerships.** This proposal represents a collaborative effort with King County and users of the King Country Metro system, which benefits the City in several ways, including the fact that decisions are made at a regional level rather than the local level, providing more environmentally sound practices as well as cost efficiencies due to economies of scale.
- **Sewer - Efficiency Gains/Cost Savings.** Our continuing contract with King County Metro's Wastewater Treatment Division (WTD) allows the City to take advantage Metro's infrastructure and facilities, thereby eliminating any need for Bellevue to build its own separate, independent treatment facilities. As a result, the City avoids the huge expense associated with such a large public works project. The City is also able to take advantage of Metro's environmental stewardship efforts.

Consequence of not funding the proposal at all:

- **Legal:** The City would be out of compliance with its contractual obligation to pay King County Metro for sewage treatment and disposal services through June 2036 and its interlocal agreement with Cascade where it is obligated to purchase its water supply.
- **Water Customer Impact:** An adequate supply of good quality water is necessary for the health of the environment and the community. If this proposal is not funded, the City of Bellevue would be in violation of the terms of the Cascade Water Alliance interlocal contract and would face significant penalties. Changing the

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

City's water supply would be disastrously expensive and a protracted political and legal issue. Failure to comply with the terms of the contract with Cascade Water Alliance not only jeopardizes the City's immediate water needs, but also endangers access to water for the future.

- **Sewer Customer Impact:** The City does not have the resources to properly treat and dispose of sewage flows. By contract, and due to regional policy that makes constructing a new sewage treatment facility virtually impossible, the City cannot treat its sewage through any other means. If this service is not provided, the back-up of sewage would seriously endanger the health and safety of the community.

Consequence of funding at a lower level:

Failure to comply with the terms of the contract with Cascade Water Alliance and King County Metro would not only jeopardize the City's immediate water and sewage service needs, but also endanger access to services in the future. Bellevue is obligated to pay for its share of water and sewer needs for which it contracts.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0412	Utilities: Number of years for which projected water supply is sufficient to meet future water demand				50	50	50	50
140.0413	Utilities: Number of years projected wastewater disposal needs are secured	26	25	24	23	15	15	15

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Payment to Cascade Water Alliance and King County Metro per demand.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.50	0.50	Expenditures	51,499,939	52,091,161
LTE	0.00	0.00	Personnel	80,374	83,102
Total Count	0.50	0.50	Supporting Revenue	0	0
			Rev-Exp Balance	-51,580,313	-52,174,263

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utilities Mobile Workforce	
Proposal Number:	140.62NA	Outcome: Healthy and Sustainable Environment
Parent Proposal:		Primary Dept: Utilities
Dependent Proposal:		Proposal Type: New
Previous Proposal:	N/A	Budget Status: Recommended
Attachments:	0	Primary Staff: Joe Harbour, x2014

Section 2: Executive Summary

This proposal funds technology hardware and additional mobile software that front-ends our Maximo work management system to support deployment of mobile workforce solutions for field staff performing operations and maintenance activities. The goal is to improve the operational efficiency and effectiveness of staff performing work in the field. Direct program benefits from a mobile workforce platform include: real-time data access and uploads in the following areas: utility maps; remote work order dispatching and documentation; field data entry to eliminate “double entry” of work order and asset documentation first from paper then into Maximo; ability to query historical information regarding past work, customer interactions and asset information. Having real-time access to this information leads to better customer service and response and more efficient utilization of field staff.

Section 3: Responsiveness to Request For Results

Bellevue Utilities provides water, wastewater and stormwater service to a wide area of over 37 square miles. The Bellevue Service Center (BSC) is located on the north side of town. Field staff are in the field 75-90% of working hours and the utility is in a better position to respond to emergencies and customer requests by maximizing staff time in the field. A successful deployment of a mobile workforce provides the necessary hardware and software – both in the appropriate form factor – to allow field staff to remotely view, query and document work orders and asset conditions as the work is dispatched and performed. In addition, the ability to remotely view and interrogate live utility as-built maps improves the response to emergencies and customer requests. Field data availability, quality and timeliness are compromised without some level of mobile workforce automation.

Efficiencies/Innovations/Evidence and Logic Supporting this Proposal: Technology is changing at an ever-increasing pace. Mobile workforce technology has reached a critical mass and maturity where the hardware and software solutions are paying dividends. Because of this, many jurisdictions, both larger and smaller than Bellevue, have implemented mobile workforce solutions over the past decade. Mobility improves effectiveness by: improving response to customer requests by having remote access to the most current work order information on problems (history); eliminate the need for paper documentation and then double-entry of asset conditions and work order documentation; reduce the need for paper as-built maps that quickly become out of date by providing real-time current as-built maps; reduce the bottlenecks on the shared desktop computers at the BSC at the beginning and end of each workday as staff update their field notes; improve the accuracy of documentation by creating the field logs/asset updates when the information is fresh in the minds of the user. In addition, when field staff are waiting for something such as parts to arrive on-site, they can opportunistically complete work logs during periods of “downtime”. Examples of the estimated projected savings under full deployment are as follows:

Printing costs (paper/toner): 80,000 pages of paper and ink - \$2,000

Trip reductions: 2,500 gallons fuel, \$8,900; Labor hours redirected from driving time – 3,750 hours or \$145,000

Duplicate data entry elimination: Labor hours redirected from duplicate data entry – 2,100 hours or \$82,500

Total benefits in reduced consumption and redirected labor are estimated at \$238,400 annually.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Short and long term benefits of this proposal: Short term benefits include improved response to customer requests; more accurate and timely data collection; more staff time in the field which improves our ability to more effectively respond to emergencies; less driving to and from the BSC for information; improved engagement of staff by providing the tools to increase access to data and maps. Long term benefits include improved asset management by having the most accurate and complete data.

Describe why the level of service being proposed is the appropriate level/scalability: Moving from paper processes to electronic processes demands a strategic approach to foster end-user acceptance. In addition, a mobile deployment requires enough field devices to support the investment in the back office hardware and software implementation. Another consideration is the investment in support and training for field staff with the life cycle of the mobile devices. With that as background, this proposal supports a mid-size deployment of devices when compared to the number of field staff. The vision equates to one mobile device on average per 2-3 person crew. The ability to upscale in the future would be considered in the hardware/software requirements. In addition, partnering with other departments has been considered and will likely occur once the underlying infrastructure is in place.

Factors in the Healthy and Sustainable Environment outcome:

Factor 2: Water: A well-equipped mobile workforce improves staff ability to operate and maintain the drinking water, storm water and wastewater infrastructure and by extension the HSE outcome. This aids in providing the reliable supply of drinking water, managing the stormwater system to minimize flooding and ensure the reliable conveyance of wastewater from homes. In addition a mobile workforce better positions the Utility to meet regulatory requirements in all three areas through enhanced field activities and improved documentation.

General Purchasing Strategies: This proposal works to deliver results in an environmentally sensitive and sustainable way through improved connectivity and as a result reducing unnecessary travel by providing remote access to maps and data. It also supports our asset management program with the goal of making informed decisions and minimizing lifecycle costs.

Healthy and Sustainable Environment Factor Specific Purchasing Strategies:

The benefits of a mobile workforce as stated above work to ensure clean reliable water by meeting the needs of the environment and our community now and into the future. Specifically a mobile workforce is better positioned through enhanced connectivity and technology to ensure the safe, reliable supply of drinking water, the removal of wastewater from homes and businesses and ensure that storm and surface water runoff is controlled to minimize the negative impacts such as erosion and flooding. Promote a sustainable built environment and work to keep our city clean and free of waste, debris, and toxic materials. Reduction in paper, toner and fuel consumption supports a sustainable environment, reduces CO2 emissions equivalent to 23,500 pounds of coal burned in one year. Responsive Government Factor - High Performing Workforce: This proposal identifies and implements technologies that promote an engaged/empowered workforce – staff have an expectation to “be mobile” in accessing data and information as part of being productive and performing at a high level; balance value and performance; support both a well trained and equipped workforce and are an extension of continuous process improvement and innovation. Reduction in employee trips and elimination of duplicate data entry allows for re-direction of staff labor to operation and maintenance activities (increases wrench time).

Responsive Government Factor – Customer-Focused Service: This proposal supports high quality service delivery by using the most current information to respond to customer inquiries and mitigate unplanned failures. For example, a mobile workforce can better troubleshoot and minimize the duration of

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

water/wastewater service interruptions by having electronic current as-built maps in the field. Staff have the tools and information to provide direct and timely customer service.

Citywide Purchasing Strategies:

This proposal works to ensure sound management of resources and business practices though improved access to information for decision-making and documentation. In addition, it works to keep field staff deployed in the field, on task, and better positioned to respond to emergencies.

Consequence of not funding the proposal at all:

Legal: N/A

Customer Impact: If this proposal is not funded it would represent a lost opportunity to increase responsiveness to the customers in a variety of ways including: more timely mitigation of service interruptions; more timely and informed response to customer inquiries; and more efficient and effective use of field staff resources.

Other: N/A

Consequence of funding at a lower level: Similar to those described above.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0362	Utilities: Field staff adoption/utilization rate of Mobile Workforce technology	N/A	N/A	N/A	N/A	N/A	50%	75%
140.0363	Utilities: Field staff survey results on how well Mobile Workforce software solutions meet needs	N/A	N/A	N/A	N/A	N/A	85%	85%
140.0364	Utilities: Field staff survey results on how well Mobile Workforce hardware solutions meet needs	N/A	N/A	N/A	N/A	N/A	85%	85%
140.0365	Utilities: Labor hours redirected from duplicate data entry due to Mobile Workforce Project	N/A	N/A	N/A	N/A	N/A	210	2,100
140.0416	Utilities: Reduction in number of pages printed via mobile solution	N/A	N/A	N/A	N/A	N/A	8,000	50,000

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Mobility proposal represents a new service with new costs as outlined in the proposal.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue

5D: Are changes to the existing service levels included in this proposal?

N/A

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	0.00	0.00	Expenditures	456,236	322,999
LTE	1.00	1.00	Personnel	105,009	108,762
Total Count	1.00	1.00	Supporting Revenue	0	0
			Rev-Exp Balance	-561,245	-431,761

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Utility Planning and Systems Analysis		
Proposal Number:	140.63NA	Outcome:	Healthy and Sustainable Environment
Parent Proposal:		Primary Dept:	Utilities
Dependent Proposal:		Proposal Type:	Existing
Previous Proposal:	140.09NA and 140.	Budget Status:	Recommended
Attachments:		Primary Staff:	Kit Paulsen, x4861

Section 2: Executive Summary

This proposal supports system analysis and comprehensive planning for three utilities: drinking water, wastewater, and stormwater systems. Demand for Utilities services changes over time, so the systems require periodic assessment of their capacity and integrity for conveyance, quantity and quality of flows, impacts on the natural environment, and opportunities for rehabilitation and improvements. System analysis provides the current state of the systems for capacity, integrity, and condition. The system plans guide projects and programs to continually improve Utility functions. System analysis supports customer requests for data, such as available sewer capacity, fire flow levels, and stream flow summaries. Stream health indicators are important as stormwater conveyance depends on local streams and influences their condition. Drinking water and wastewater comprehensive system plans have state mandated update requirements. Stormwater plan update intervals are set by city policy.

Section 3: Responsiveness to Request For Results

System analysis and planning for Bellevue's Utility systems provides short and long-term information to assure the drinking water, wastewater, and stormwater systems provide reliable services to everyone in Bellevue at a reasonable cost while protecting streams and lakes.

This proposal is for continuing an existing service. Proposals 140.09NA and 140.12NA from the last biennium were combined and are presented in this proposal.

What does this proposal buy?

Systems Analysis is a mission-critical body of work to collect and analyze information about water, sewer, and stormwater system performance that informs continued efficient operations, quantifies capabilities, and identifies problems or deficiencies. Utilities systems include all of the built and natural components necessary to supply, convey, treat, and remove water, wastewater, or stormwater. Bellevue's utility systems are valued at over \$3.5 billion and includes pipelines, water reservoirs, water and sewer pump stations, valves, culverts, detention ponds and other facilities that deliver clean drinking water; collect and remove sewage; and collect, hold, and convey stormwater runoff.

Computer models are developed, maintained, and operated to predict the amount the water system can deliver to fight fires (water), to map and predict flooding (storm), and to forecast capacity and potential sewer overflows (sewer). Computer models and trend analysis rely on up-to-date, accurate information. The systems analysis operating costs include professional services contracts for one-time, focused technical studies (storm, water, sewer), as well as on-going contracts for stream quality indicators (insects), flow gauges and maintenance, investigations for invasive species infestations, and new stormwater manual adoption and training services. Modeling and analyses assures the systems are operated efficiently, answers developer questions about capacity, identifies potential deficiencies, and allows rapid response for emergencies. This budget includes funding for 3 student interns who provide efficient data collection, management, and basic analyses for all three utilities. Performance measures reflect responsiveness to customer requests for current systems information, including fire flow and sewer capacity analyses requests completed within 2 weeks and

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

flow and rainfall data available monthly.

The Utilities participates in and manages a federal flood insurance rating program that is the basis for reduced flood insurance costs and includes audits by an outside entity. The program ranks Bellevue's floodplain management program for use of best management practices and provides comparisons to other jurisdictions across the nation. Storm analysis includes monitoring stream health based on fish usage and other biological indicators that respond to cumulative management actions and capital programs.

System plans and targeted studies identify, quantify, and recommend solutions to current and anticipated problems to increase operational efficiency and reduce expensive emergency situations. Utility system plans analyze changing conditions, regulations, anticipated demand, and impacts to the environment. Utilities system planning ensures that water resources are managed to meet needs now and into the future.

This proposal includes funding for FTE/LTE staffing including 34% Utilities Planning Manager, 67% senior water engineer (modeling water/wastewater), 1 water/wastewater engineer (capacity analysis), 2 senior stormwater engineers (modeling/monitoring/natural drainage practices), 1 stream biologist, 33% asset manager, 50% administrative support, and 25% Assistant Director for Engineering.

Other stakeholders: City-managed computer models allow rapid response to developer requests for quantifying system capacity, for emergency response, and provide in-house ability to quantify the impact of City initiatives, such as rezones. Fire, Planning and Community, and Development Services rely on Utility system analysis for future zoning, and building and planning permits. O&M use Systems Analysis to optimize operations of water reservoirs, water and sewer pump stations, and stormwater detention ponds. Cascade Water Alliance, King Co. Metro, and Wash. Dept. of Health require water and wastewater forecast and demand data. Regional partners rely upon and help support USGS gages.

Mandates and Contractual Agreements: WAC 246-290-200 requires Water System Plan updates every 6 years; WAC 173-240-050 requires the City maintain an up-to-date Wastewater Comp. Plan; Ordinance 2645 directs Bellevue to participate in the National Flood Insurance Program (NFIP); and NFIP minimum requirements as outlined in the Code of Federal Regulations: 44 CFR Chap. 1, subpart B. This proposal calculates the volume of drinking water lost to system leakage that is required annually by the Washington State Department of Health (DOH) to satisfy the Water Use Efficiency Rule. Annual water use and water consumption forecasts are required by Bellevue's contract with the Cascade Water Alliance. Storm system plans are required by city policy to be updated every 10 years or 2 NPDES permit cycles.

Why is service level appropriate? Scalability?

This proposal maintains the current level of service, which is at the minimum viable level. Utility system plans are updated at the minimum frequency required to comply with state law, and to plan proactively for regulatory changes, land use changes, changes in forecast or timing of population growth, and other circumstances that affect the forecasted demands on utility systems. The proposed budget funds completion of one targeted stormwater basin study within the two years and one small technical study for each utility. Technical staff have specialized expertise specific to each utility, but are cross-trained so they can support each other. This allows us to maintain lean core staffing levels while providing ongoing inter-departmental support. Engineering/ environmental student interns and Stream Team volunteers provide cost-effective supplemental support.

How does this proposal relate to cause and effect maps?

Utilities system analysis and planning directly relates to the "reliability of services and infrastructure that support public health and safety, as well as protect the environment." To maintain key community indicators

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

for drinking water, wastewater, and stormwater services, comprehensive planning and systems analysis are necessary to assure services are provided in the right amounts at the right locations. Performance measures related to system capacity restrictions on development (water/sewer) and structural flooding (storm) directly relate to whether planning has addressed consumer needs.

Comprehensive planning identifies what will be needed to provide customers with safe, sufficient, and clean drinking water; to remove sewage safely from homes and businesses and deliver it to regional conveyance and treatment facilities; to achieve surface water quality and quantity that provide wildlife habitat and to meet recreational needs; and to control runoff in a way that minimizes flooding and erosion both for current operations and future customers.

This proposal supports “a healthy natural environment that supports wildlife” because stormwater planning and systems analysis evaluates capacity and management of these systems to minimize damage to streams and lakes. Planning reduces wastewater from being spilled into the environment and stormwater runoff can be slowed and cleaned prior to release to streams and lakes. Stormwater system plans and basin studies include assessments for improving natural stream condition. Performance indicators include biological indicators of stream health, including organisms that live most of their lives on the stream bed (insects) fish that help improve stormwater operations to reduce impacts and improve stream habitat.

Responsive Government (Strategic Leadership, Customer-Focused Service, Stewardship of the Public Trust); Economic Growth & Competitiveness (Costs & Capital; Land, Infrastructure and Planning) are also supported by Utilities system analysis and comprehensive planning so that development is not slowed by utility system capacity and that customers receive high value at reasonable for utilities services.

Innovations/Efficiencies: Planning identifies potential efficiencies as new technologies emerge, opportunities arise, or operations can be streamlined. For example, Bellevue’s existing emergency wells will be analyzed to determine whether they can supplement regional water supply in the case of an outage, which may offset or reduce the need for additional reservoir storage.

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0045f	Utilities: Stream Quality Indicator Trend - Insect samples (Healthy Natural Environment Indicator)	1.13	1	1	1	1	1	1
140.0052	Utilities: Rainfall and Flow data downloaded and available for customer access each month (Storm)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140.0104f	Utilities: Percent of requests for available sewer capacity completed within 2 weeks (Wastewater)	N/A	100%	100%	100%	100%	100%	100%
140.0305	Utilities: Structural flooding occurrences < 100 year storm event (Storm Water)	24	7	13	14	N/A	N/A	N/A
140.0307f	Utilities: Percent of requests for fire flow data provided within 2 weeks (Water)	100%	100%	98.72%	98%	100%	100%	100%
140.0414	Utilities: Has lack of system capacity restricted or prevented any new development or redevelopment (System Capacity Planning)	No	No	No	No	No	No	No

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

Yes, \$15,000 per year for a new program for assessing the presence of invasive New Zealand Mudsnaills in Bellevue streams and lakeshore parks to limit the potential for additional infestations that seriously damage streams, lakes, and wetland ecosystems.

5B: Are one-time expenditures included in this proposal?

Yes. Basin studies, and non- CIP Utilities studies are considered one-time as they focus on individual problems, streams, or opportunities. System plans are considered one-time efforts because they occur infrequently (every 6-10 years).

5C: Are dedicated revenues included in this proposal?

Proposal costs are entirely supported by Utility rates.

5D: Are changes to the existing service levels included in this proposal?

No. This proposal combines and replaces proposals 140.09NA (Utility Comprehensive Planning) and 140.12NA (Utility Systems Analysis) from the last biennium.

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>	<u>Operating</u>	<u>2015</u>	<u>2016</u>
FTE	6.09	6.09	Expenditures	261,527	267,539
LTE	0.00	0.00	Personnel	866,306	895,802
Total Count	6.09	6.09	Supporting Revenue	0	0
			Rev-Exp Balance	-1,127,833	-1,163,341

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

Section 1: Proposal Descriptors

Proposal Title:	Citywide NPDES Management	
Proposal Number:	140.64NA	Outcome: Healthy and Sustainable Environment
Parent Proposal:		Primary Dept: Utilities
Dependent Proposal:		Proposal Type: Existing
Previous Proposal:	140.26PA	Budget Status: Recommended
Attachments:	0	Primary Staff: Phyllis Varner, x7683

Section 2: Executive Summary

This proposal funds services to implement and support citywide implementation of the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. The permit is a federal Clean Water Act requirement. It requires municipalities to implement a citywide Stormwater Management Program to protect water quality and uses of our lakes, streams and wetlands. Program conditions are phased in over a 5-year permit term, making compliance a moving target. The Permit is revised and reissued every 5 years. The permit includes over 100 conditions which impact private property owners and programs over 12 City departments. Implementing and supporting departments' implementation of permit conditions, documentation, annual compliance reporting, contract management and providing City Council communication and policy support are part of the services provided by this proposal. Failure to comply with the permit conditions can result in fines, imprisonment and third-party lawsuits.

Section 3: Responsiveness to Request For Results

What does this proposal buy?

This proposal buys services to direct, manage and administer citywide implementation of the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit as well as to help assess, strategize and represent City's interests in future permit development. And it buys a multitude of services to support a healthy and sustainable environment because the focus of the NPDES Permit programs and activities is to protect water quality and fishable/swimmable uses of Bellevue's streams, lakes and wetlands and minimize development-related flooding and erosion impacts.

The Stormwater Management Program (Program) required by the federal NPDES Permit impacts programs and activities in 12 City departments and the actions of private property owners; including City outreach and education programs; new development, redevelopment and construction programs; illicit discharge awareness and response programs; enforcement programs; municipal operations; storm drainage system inspection and maintenance programs, water quality monitoring and information management and documentation activities. Over 100 permit conditions are phased-in over the 5-year Permit term, making compliance a constantly shifting target. The NPDES is a "forever" permit; it is revised and reissued every five years. Bellevue is currently implementing its second NPDES Permit (2013-2018).

This proposal funds 1 FTE, mandated permit fees and consultant services. The FTE directs, coordinates or manages, and administers citywide permit requirements affecting programs and staff from 12 City departments and helps to assess, strategize and represent the City's interests in future permit development. The FTE services include informing and directing citywide staff on the permit requirements for their programs and activities; managing or supporting multi-departmental and multi-year projects to implement permit requirements by the specified deadlines; managing an annual citywide compliance reporting process; providing other compliance reporting when triggered; developing and managing permit-related contracts, grants and consultant services that support implementation of the Permit; preparing or supporting NPDES-related presentations to Commissions and City Council; serving as the City's lead and point-of-contact with the permit authority (which requests permittees to provide a single point-of-contact for the Permit); providing technical

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

advice and support to the City Attorney's Office on permit legal issues and appeals; helping to assess, strategize and represent the City's interests in future permit development at the local, state and federal level. The mandated permit fees include an escalating annual permit fee and a constant annual Regional Stormwater Monitoring Program fee. The consultant services include \$85,000 in 2015 to develop a Bellevue Low Impact Development infiltration feasibility map for stormwater facilities (pervious pavement, bioretention facilities) and \$25,000 in both 2015 and 2016 (total of \$50,000) to address citywide business processes, permit information management and documentation needs. The LID map will support public and private developers' implementation of new stormwater development requirements. Improvements to business processes, information management and documentation activities are key elements in ensuring the City maintains compliance with Permit conditions and consulting services will help do this for example by site audits of the seven city facilities implementing NPDES Stormwater Pollution Prevention Plans, mock audits of citywide programs and tracking citywide NPDES costs. Funding to implement individual City programs' NPDES requirements are addressed separately in other budget proposals.

Why is service level appropriate? Scalability?

This proposal is scaled to provide the minimum level of resources necessary to manage citywide implementation of this federal mandate.

What key HSE community and performance indicators are addressed by this Proposal?

This proposal directly addresses the key community indicator for "% of residents who agree the City of Bellevue provides stormwater services and infrastructure that reliably ensure public health and protect the environment" and the key performance indicator for "stormwater quality."

How does this proposal address a balance of citywide guiding principles, purchasing strategies and HSE Outcome factors and purchasing strategies?

This proposal addresses several Citywide Guiding Principles including the principles of focusing on:

1. Services that deliver Outcomes important to the community (by ensuring environmental stewardship and storm and surface water services important to the community continue per HSE RFR and by providing tools to private property owners which make it easier and less costly to implement Permit requirements, for example, permit requirements associated with property development);
2. Citywide, not Department, priorities (by centralizing NPDES permit administration for 12 City departments which provides significant efficiencies and cost savings consistent with the One City philosophy and sustainable budget; also being an efficient, sound business practice because it helps City maintain compliance with the Permit and minimize liability exposure) ;
3. A long-range strategic approach to an affordable and sustainable budget (same points as #2; Also local and regional partnerships ensure that Bellevue interests are promoted at the regional, state and federal level to minimize surface water taxes and fees and maximize their use) and;
4. Commitment to innovation, efficiency, and sound business practice (same points as #2 and #3).

This proposal addresses several Citywide Purchasing Strategies including:

1. Providing for gains in efficiency and/or cost savings;
2. Ensuring services are "right-sized;"
3. Leveraging collaboration or partnerships with other departments;
4. Serving as a catalyst for increasing citizen participation and support;
5. Reducing or eliminating duplicative services and;
6. Ensuring sound management of resources and business practices.

It does this by centralizing administration of the citywide NPDES Municipal Stormwater Permit. Centralizing Permit administration for 12 City Departments provides for significant efficiencies and cost savings, an appropriate level of resources and the best value in meeting community needs. It fosters a collaborative

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

approach and champions “One City” service delivery. Citywide NPDES oversight is a proactive approach and sound management practice to helping ensure compliance with the federal mandate.

This proposal directly relates to Healthy and Sustainable Environment’s Water Factor for surface and stormwater management, Natural Environment Factor for healthy lakes, streams and wetlands and Built Environment Factor for sustainable building and development by providing services necessary to manage implementation and compliance with the NPDES Municipal Stormwater Permit. The Permit requirements affect a multitude of programs and activities that comprise storm and surface water management, protect water quality and minimize development-related water quality, flooding and erosion impacts for environmental sustainability. Based on the new Permit requirements, this proposal also addresses the Air Factor for preserving and expanding tree canopy through the low impact development requirements.

This proposal also addresses the Responsive Government outcome by delivering a service model that maximizes resource efficiency and meets the mandates’ legal requirements, promoting citizens’ voice in surface water issues and looking ahead to seek innovative solutions to local, regional and federal challenges with future permits.

This proposal also addresses the Economic Growth and Competitiveness outcome for the Land, Infrastructure and Planning factor based on new low impact development requirements to review and revise land use regulations to minimize impervious surfaces and native vegetation loss in all types of development situations.

This proposal addresses HSE’s General Purchasing Strategies because it has a direct relationship with HSE outcome; includes process improvement by centralizing permit management; applies to a broad range of strategies and programs, fosters community collaboration and partnership, and results in multiple benefits from City staff working collaboratively to comply with the permit and protect water quality.

Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>2010 Actual</u>	<u>2011 Actual</u>	<u>2012 Actual</u>	<u>2013 Actual</u>	<u>2014 Target</u>	<u>2015 Target</u>	<u>2016 Target</u>
140.0269	Utilities: Compliant With City-wide NPDES Permit Requirements	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140.0343	Utilities: Percentage of planned phases completed for NPDES Citywide projects in calendar year				100%	100%	100%	100%
140.0344	Utilities: Met NPDES requirements for action as required by S4F Compliance (if triggered)				Yes	Yes	Yes	Yes
140.0345	Utilities: Submitted Annual NPDES Compliance Report to the state Department of Ecology by the annual Deadline				Yes	Yes	Yes	Yes

Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

No. This proposal’s costs were part of Proposal #140.26PA in past budget years.

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

Proposal is supported by Utility rate revenue.

5D: Are changes to the existing service levels included in this proposal?

N/A

City of Bellevue - Budget One

2015-2016 Operating Budget Proposal

5E: Budget Summary

<u>FTE/LTE</u>	<u>2015</u>	<u>2016</u>
FTE	1.00	1.00
LTE	0.00	0.00
Total Count	1.00	1.00

<u>Operating</u>	<u>2015</u>	<u>2016</u>
Expenditures	224,062	167,008
Personnel	141,086	145,886
Supporting Revenue	0	0
Rev-Exp Balance	-365,148	-312,894